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RURAL CITY MILK SUPPLIES—THEIR RELATION TO INFANT FEEDING—HOME MODIFICATION VERSUS LABORATORY FEEDING*

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Excepting the good that may come from frequent repetition of already known facts, thus aiding the dissemination of the knowledge of modern infant feeding, it would seem that there is little excuse for an article having the above title. When, on the other hand, we compare the analyses of milk made in various countries and various parts of our own country, note the variety of results obtained, and the analyses upon which are based the many formulae that have been introduced in text books, endeavor with failure to reproduce results vouched for by standard methods of obtaining definite fat percentages for home feeding, it would seem that some value may be attached to any investigation that will help to clear up some of these discrepancies.

Rural Milk Supplies: Towns of 10,000 to 20,000 population, proportionate to their size, receive their milk from a radius of 20, 30, 40, and often 50 miles. As distance is time and time and handling are bacterial growth, it is not difficult to see how conditions that obtain in small towns are superior to those in the larger cities. It is a well known fact that the so-called good creams of large cities are usually several days old. Conditions are better with certified milk. Seldom in rural districts is cream delivered over 24 hours old.

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Arbor Board of Health for supplying them with samples of milk from the various dairy farms which supply the city, and we take this opportunity to thank Dr. Wessinger, the health officer, for much useful information furnished us at an expense of his valuable time.

The milk was brought to the milk laboratory in serial number. The name of the dairy was withheld. It was collected by an officer at an unexpected time, of his own choosing. Except where otherwise stated the milk was bottled at the dairy and not taken from the tanks in the milk wagon.

The analysis of this series has to do only with the percent of fat in the whole milk, the specific gravity, and the total acidity. We have considered standard milk one which has 4 per cent fat, a specific gravity of 1028 to 1033, and a total acidity not higher than 25. The results of the analyses are as shown in table A. By reference to this table it will be seen that of the 49 dairies examined the fat percentage was 4 or above 4 in 25, and that in 9 of these it was above 5. Seven were between 3½ and 4, eight were below 3½ and 2 of these were 3 per cent. One dairy furnished a 10 per cent milk, this was too high for good milk and too low for good cream. It was reported as cream below standard. It was subsequently found that the high percentage of fat was due to an attempt to deceive the Board of Health, which had had trouble with this dairy before.

TABLE A

Dairy No.	Per Cent. Fat in Whole Milk	Specific Gravity	Total Acidity	Dairy No.	Per Cent. Fat in Whole Milk	Specific Gravity	Total Acidity
1	4.1	1032	26	25	5.5	1030	25
2	4.2	1038	28	26	4.0	1031	28
3	4.1	1032	24	29	3.8	1032	24
4	4.0	1030	26	30	3.6	1030	
5	3.3	1031	26	31	3.8	1032	
6	4.2	1034	28	32	4.2	1032	
7	3.6	1032	25	33	6.3	1026	
8	3.8	1032	30	34	3.2	1034	
9	4.0	1032	26	35	5.0	1030	
10	3.0	1036	28	36	3.0	1032	
11	4.8	1032	24	40	3.8	1032	24
12	4.0	1034	24	41	5.6	1032	24
13	4.0	1034	24	42	3.2	1034	22
14	5.2	1034	22	43	4.2	1032	25
15	3.6	1034	20	44	5.2	1032	24
16	3.6	1032	26	45	4.0	1034	27
17	3.2	1034	28	46	4.0	1032	25
18	4.2	1034	30	47	5.0	1032	25
19	3.2	1036	24	48	4.4	1034	25
20	3.4	1034	26	49	4.4	1033	24
21	5.5	1031	26	50	3.8	1032	24
22	5.0	1032	25.5	51	4.8	1033	24
23	4.5	1032	28	52	5.2	1031	26
24	4.5	1033	29				

The specific gravity varied proportionately with the fat in most cases. It is interesting to note that in the milk of herds in which the inspector found mammary and udder disease, the total acidity was high, always 28 or above. Invariably when the acidity was much above 25 it could be traced to dirty stables, dirty cows and careless milking methods. The trouble has been in the stables and in

the milker. It is of very little avail that the housekeeper puts the milk in a cool place, protects it from all contamination, if from the time it leaves the udder until it reaches the consumer, it has been through a course of dirt collection from unclean hands, unclean pails, unclean tanks, etc. This journey through unclean receptacles is too frequently evidenced by the visible sediment that greets the eye as the bottom of the container is reached.

We found through the investigation of the Board of Health that the usual plan of dispensing milk is as follows: All bottled milk is taken from the previous evening's milking, that, that is not bottled is carried in the faucet tank in the front compartment of the wagon. All milk taken from the cows in the morning is put into ordinary cans.

It must be evident to every one that bottled milk, even though it is of the night milking, stands a better chance of reaching the consumer in good condition than milk that is put in the faucet tank or in ordinary cans. It must be a very difficult task to keep the tanks and the can clean, even when the strictest measures of cleanliness are observed. How great the chances of contamination when no special thought is given to them! Picture the bacteria that may lurk in the seams of the can and the bottom where it is impossible to reach with hand and brush!

After counciling with the Board of Health we decided that for the present, until more elaborate methods can be carried out, to prove the value of these simple methods, that standard milk must contain 4 per cent fat, and have an acidity not above 25 per cent decinormal sodium hydroxide solution.

We have found that by notification and instructions to the dairymen that the high acid values in the milk have been lowered. We find most of the milkmen anxious to co-operate as best they can, and a visit to the various dairies in this district demonstrated to us that much of the faulty condition was due to their lack of knowledge of bacterial growth. The condition in the milk rooms was for the most part fairly good, but in the stables no efforts were put forth to secure the cleanliness that is so essential. The amount of good that can be accomplished by local boards of health can not be over estimated. *When the public begin to realize that by far the greater number of deaths in infants and young children, rich and poor alike, are due to diseases of the digestive organs and that these are caused by impure milk, greater efforts will be put forth to bring about conditions that will compel dairymen to have regulation stables and produce standard milk.*

If only common cleanliness could be guaranteed, thousands of infants' lives could be saved yearly. Sterilization will not accomplish as much as is expected of it. Germs kill not only by invading the tissues of the body, but also by elaborating chemical poisons in the milk, which are unaffected by either Pasteurization or sterilization. We must have clean milk. If health officers were better paid and were obliged to qualify for office by competitive examination, before an unbiased board, much of the difficulty would be solved.

Taking all things into consideration the above analyses show that the milk supplied to Ann Arbor is on the whole

good so far as its fat content is concerned. We have examined the milks of some of the dairies, particularly Nos. 1 and 6, at various times for two or three years and have never found the fat per cent below four. They have frequently been dirty, and at these times their acidities have been high. The dairies around Ann Arbor represent the prevailing type. They are probably no better and no worse than those in other districts. The milk that is being delivered is physically good, is seldom skimmed or diluted. Lowered fat percentages can usually be traced to improper and poor feeding, in but few instances to diluting.

Milk Analysis: Practical milk analysis resolves itself into the estimation of but a few points. Without these no milk modification can be correct. The possession of more minute data will help us but very little. Even methods that are thought to be most ideal are only approximate. We have then to estimate the per cent of fat in the whole milk and in the cream, the specific gravity, and if we would have the alkalinity correct, the total acidity should be known. However, for practical purposes, this is not necessary and the total acid value may be employed as a means of gaining some idea of the cleanliness of the product used.

Fat estimation requires about ten minutes' times. The most reliable test is the Babcock test. Small hand-turning testers are manufactured by various creamery manufacturing companies. A whole outfit can be bought for a small sum, including directions which are too familiar to you all to require repetition here. All fat estimation reported in this paper was made with a large electric centrifuge.

The approximate percentage of proteids is estimated by comparison of specific gravity with fat per cent. The proteids of milk are fairly constant, more constant than fat. They are estimated at 4 per cent. If the specific gravity is low, the fat per cent high, the proteids are normal. If the fat per cent is normal or high and the specific gravity high, the proteids are increased. If the fat per cent is normal or low and the specific gravity is low, the per cent of proteid is decreased. It is more necessary to be in possession of definite fat percentages than of proteid.

The symptoms of proteid excess are much more evident than are those of fat excess. The stools may be used as an index of proteid digestion, yet it must be remembered that infants may thrive and manifest no complaints and still show curds in the stools. This symptom alone does not necessarily mean that our casein must be decreased. It must be combined with other phenomena which go to make up the symptom complex of proteid indigestion.

Sugar in cow's milk for practical purposes may be considered as a constant factor, varying little from 6 per cent. The polariscopic method for sugar estimation is the most practical and is very accurate.

Knowing the percentage of fat in the whole milk and in the cream, it is a very simple matter to calculate the quantity necessary to give the required amounts. We find Baner's method of great practical value. It is simple and gives fairly accurate results. We think as accurate results can be obtained by

home modification with this method as are usually obtained by Walker-Gordon laboratories, and it is much better from the standpoint of independence, as there is no patent upon it.

Percentage feeding resolves itself into so simple an algebraic expression that any one mathematically inclined can devise equations of his own, if he cares to. Those who do not wish to spend time working out equations of their own can accept this method and have the assurance that they will obtain good results. Possibly its only point of failure is in the calculation of low proteid percentages, but this applies only when low per cent top milk fat is employed. The method is as follows:

BANER'S METHOD.

Let Q represent the quantity of mixture required for 24 hours.
F represent the desired per cent. of fat.
P represent the desired per cent. of proteid.
S% represent the desired per cent. of sugar.
A represent the desired per cent. of lime water.
C = Cream. M = Milk. W = Water. LW = Lime Water. S = Sugar.

It will be found that

$$\frac{Q}{\%\text{ of fat in cream} - 4} \times (F\text{-}P) = \text{Cream in ounces.}$$

$$\frac{Q \times P}{4} - C = \text{Milk in ounces.}$$

$$\frac{A}{100} \times Q = \text{Lime water in ounces.}$$

$$Q - (C+M+LW) = \text{Water in ounces.}$$

$$\frac{S\% - P}{Q} \, Q = \text{Sugar in ounces.}$$

Example:—A mixture of 48 ounces containing 3% fat, 1.5% proteid, 6% sugar, and 5% lime water is desired. The whole milk is known to contain 4% fat, and the cream, upper 4 ounces, after standing 4 hours, 16% fat.

$$C = \frac{48}{16-4} \times (3-1.5) = 6 \text{ ounces.}$$

$$M = \frac{48 \times 1.5}{4} - C = 12 \text{ ounces.}$$

$$LW = \frac{5}{100} \times Q = 2.4 \text{ ounces.}$$

$$W = 48 - (6+12+2.4) = 27.6 \text{ ounces.}$$

$$S = \frac{6-1.5}{100} \times 48 = 2.1 \text{ ounces.}$$

These equations assume that the whole milk contains 4 per cent fat and 4 per cent proteid. In order to use the formulae with exact results we must substitute the actual per cent of fat in both cream and whole milk,—for instance, if milk tests 4.5 or 5 per cent fat, the cream will test about 18 per cent fat. After having run a number of tests we are satisfied that most milk containing 4 per cent fat will not show greater than 16 per cent fat in the upper four ounces of cream.

The following case illustrates how near the desired amount of fat is obtained by these equations. See table B, Baby F.

An 18-ounce mixture, of 2 per cent fat, ½ per cent proteid, 6 per cent sugar, 5 per cent lime water was required. The modification was made according to the equations already given,—the modified milk was then tested for its fat per cent, with the result that in thirteen days the average fat was 1.99 per cent. We could hardly look for more accurate results than these. Our method of separating the upper four ounces, was one that every busy mother would probably use. We simply poured off the top milk or cream, our object being to test a home method of modification that would be within the range or ability of any household. We find that the percentage of fat by this method does not differ from that obtained by use of the siphon.

The percentage of fat in the whole milk of herds will necessarily vary with the conditions existing at different times of the year, and while it is not necessary to make daily fat estimations, they should be made at more or less frequent intervals, particularly if the infant shows

signs of digestive derangement.

We have made a few observations (Table D) on the depth of the cream layer, after standing four hours, with relation to the fat content of the whole milk. A regulation bottle, allowed to stand four hours, after being thoroughly mixed, will show a more or less definite fat per cent when the cream layer is a certain depth. When the depth was 33 1/3 per cent of the bottle depth, the per cent of fat in the whole milk averaged about 4; when the cream depth was 35 to 37 per cent of the bottle depth, the fat per cent averaged 5. This, too, can be used with fairly accurate results in home modification.

TABLE B

BABY F
HOSPITAL MODIFICATIONS

Date	Quantity	Fat Per Cent.	Sugar Per Cent.	Proteid Per Cent.	Lime water Per Cent.	Fat Per Cent. In Modification
4–1–06	18 oz.	2	6	0.5	5	2
4–2–06	18 oz.					1.9
4–3–06	18 oz.					2.1
4–4–06	18 oz.					2.
4–5–06	18 oz.					2.
4–6–06	18 oz.					1.6
4–7–06	18 oz.					2.2
4–8–06	18 oz.					2.
4–9–06	18 oz.					2.1
4–10–06	18 oz.					2.
4–11–06	22.5 oz.					2.
4–12–06	22.5 oz.	2	6	1 (whey)	5	2.
4–13–06	22.5 oz.					2.
						Average 1.99

BABY A

Date	Quantity	Fat Per Cent.	Sugar Per Cent.	Proteid Per Cent.	Lime water Per Cent.	Fat Per Cent. In Modification
5–16–06	36 oz.	2	6	0.5	5	2
5–19–06	48 oz.	3	6	1.0	5	3
5–20–06	56 oz.	3	6	1.0	5	2.6
5–21–06	56 oz.	3	6	1.0	5	2.8
5–24–06	56 oz.	3	6	1.0	5	3.
5–27–06	56 oz.	3	6	1.0	5	2.8
5–28–06	56 oz.	3	6	1.0	5	2.6
5–29–06	56 oz.	3	6	1.0	5	3.0

BABY McD
HOSPITAL MODIFICATIONS

Date	Quantity	Fat Per Cent.	Sugar Per Cent.	Proleid Per Cent.	Lime water Per Cent.	Fat Per Cent. In Modification
5–8–06	48 oz.	2.5	6.0	0.5	1	2.5
5–9–06		2.5	6.0	0.5	1	2.5
5–10–06		2.5	6.0	0.5	1	2.4
						Average 2.46

BABY K
HOSPITAL MODIFICATIONS

5–8–06	18 oz.	2	6	0.5	5	2.
5–9–06	18 oz.	2	6	0.5	5	1.8
5–10–06	18 oz.	2	6	0.5	5	2.
						Average 1.93

HOME MODIFICATIONS

5–11–06	Mrs S.	2	6.0	0.5	5	2.
5–11–06	Mrs. B	2	6.0	1.0	5	1.9

To vary the percentage of fat, it is necessary to use different layers of the milk. When the upper 4 ounces contain approximately 16 per cent fat, the second 4 ounces will yield 6 per cent fat, the third 4 ounces, 4 per cent fat, and the fourth 4 ounces 3 per cent fat, so that by simply pouring off the top in definite amounts almost any desired per cent of fat content may be obtained. By using the upper 8, 12 or 16 ounces, we may get fat per cents of approximately cream distributed in this section. If creams of definite percentages were placed on the market, we can see that a great advantage would be secured. There seems to be no effort in this direction in the smaller towns, and unless the fat per cent in cream is estimated very frequently, disordered digestion will surely arise.

Our method of removing different layers of top milk after it has stood a certain length of time and thus procuring

TABLE C

Exper. Number	Fat In Whole Milk	After Standing Four Hours The Fat In The			
		Upper 4 ounces	2nd 4 ounces	3rd 4 ounces	4th 4 ounces
1	4.2	16.8			
2	4.5	16.2			
3	4.2	14.4			
4	4.8	14.4			
5	5.9	17.0			
6	4.6	14.2			
7	4.6	15.5			
8	4.9	14.0			
9	3.7	13.6			
10	5.0	18.0	6.6	4.6	4.4
11	4.8	17.2	6.0	2.0	1.8
12	5.0	18.4	6.4	3.0	2.4
13	4.6	17.2	5.4	3.4	1.6
14	4.8	17.6	6.4	4.4	2.6
15	4.0	16.0	5.8	3.4	3.0
16	4.0	16.0	5.8	4.0	3.2
17	3.8	15.4	5.2	3.8	3.4

12, 10 and 7, which are somewhat lower than the percentages claimed by Holt.

There are a good many reasons why gravity cream is better than centrifugal cream, for modifications. There may be something in the objection that in centrifugal cream the natural emulsion is partially destroyed, but there is considerable difference of opinion upon this point. We think that the arguments in favor of gravity cream are that it is usually fresher and the percentage of fat more constant than in the centrifugal

more or less definite fat percentages seems to us to be far more satisfactory. Holt and others following in his lead have given examples of top milk feeding and have reported their results of analyses of the different layers of top milk. We have repeated their experiments and have been unable to produce the results obtained by them. (Table C.) Our conditions were probably different. We sought to have them the same as in the home, where the modifying is most often done.

A milk that is set immediately

after milking, will, after four hours, raise a higher per cent of fat in the cream than milk that has stood for a time, then mixed and reset for four hours. The latter are the conditions that must necessarily exist in the home, where milk is obtained from a milkman some hours after milking, the time of the milking and the amount of jolting unknown. It may be for this reason that our results differ from those of other invsetigators. At no time were we able to obtain 20 per cent fat in the upper four ounces of a quart of milk. The highest we encountered was 18.4 per cent. Usually an average of 16 per cent was obtained. Even with 5 per cent whole milk 20 per cent cream could not be obtained by four or six hours' setting.

From our investigation we can say that a milk after being thoroughly mixed by pouring from one vessel to another, and set in a standard quart bottle will yield in the upper four ounces approximately 16 per cent fat instead of 20 per cent, as is claimed by Holt and others.

The proteids of cow's milk differ from those of woman's milk in that the percentage of casein is greater and that of soluble albumin less. It is the casein that gives us the greatest trouble in infant feeding. It was never intended that the human animal should consume large amounts of casein. It would seem then that any method of milk modification that has as its object the elimination of excess of casein must be the most ideal. So far as we know the proteids that remain in cow's milk after the casein has been removed are identical with those of woman's milk. They are at any rate soluble albumins and require much less digestive work than do the insoluble or solid milk bodies. If then we wish to feed an infant soluble albumin, in quantities sufficient to equal the proteid content of mother's milk, it is evident that the use of whey alone which contains but 1.17 per cent proteid will

TABLE D

No.	Per Cent. Of Fat In Whole Milk	Per Cent. of Distance of Cream Level from the Top to the Bottom of a Standard Quart Bottle after Standing						
		4 hours	5 hours	6 hours	7 hours	8 hours		
1	4.2	33.						
2	4.5	33.3						
3	4.2	35.						
4	4.8	34.8						
5	5.0				39.			
6	4.6	34.3						
7	4.6	36.3						
8	3.9	31.2						
9	3.7	28.1						
10	6.2					39.1		
11	5.0	40.6	40.6	40.6				
12	4.2	32.3	33.0	33.0				
13	4.2	29.7						
14	5.1	36.0						
15	5.0	37.5						
16	4.9	28.1						
17	4.8	34.4						
18	5.0	40.6						

The average cream depth of those milks approximating 4 per cent. fat is a little less than a third of the distance from the top to the bottom of the bottle. Those approximating 5 per cent. a little over a third of the distance. (36.9).

not accomplish this. To increase the content we should have to evaporate the whey, i. e., if we evaporate off the water of 20 ounces until it is reduced to 10 ounces we will have a whey containing twice the amount of proteid of the 20 ounce or 2.34 per cent proteid.

This is hardly practical for home modification, because of increased time required in the preparation, which is in reality the only objection raised by mothers against modified milk. During the first two months of life is the time when an infant most needs soluble albumin or milk that closely resembles mother's milk. We do not care to raise proteid content, during this period, above 1 per cent.

It would seem that our argument does not hold, when our constant aim has been to modify the milk of the cow to as nearly a counterpart of mother's milk as possible, for it is a well known fact that throughout the lacteal period, mother's milk never contains less than 2 per cent proteid. But we must bear in mind constantly that cow's milk can never be exactly like mother's milk, and practical experience has demonstrated to us that infants thrive on whey modifications and develop bone.

Nothing definite has been worked out with regard to the exact modification of the salts. These are reduced by dilution as are the proteids. Experiment has shown, however, that very little of the salts are lost in the making of whey, so by the use of whey in our modifications instead of water as a dilutent we increase rather than decrease our salt per cent.

Clinical experience has taught us that infants fed on modified milk do better proportionately, as the amount of casein or solid food is gradually increased. It may be necessary to begin with simple whey, a method that has proven very satisfactory, where the child is never nursed by the mother. To feed an infant for any considerable length of time on a purely soluble albumin diet or low casein diet might easily lead to serious consequences.

To prepare soluble albumin or whey, the casein is removed most conveniently by the use of the commercial junket tablet. One tablet dissolved in a little water, added to a quart of skimmed milk, which has previously been heated to 98 deg. F., will yield from 13 to 14 ounces of whey in 15 minutes' time. The casein separates as a greenish yellow semi-opaque fluid. In separating the curds from the whey pressure should be avoided. We found a single layer of absorbent cotton worked rapidly and effectually as a filter.

The mother must be especially instructed in regard to the use of the junket tablet as the directions on the box are not for making simple whey. Trouble arises if squeezing is employed, casein passes through and the whey will have a milky look.

It must be remembered that rennet works rapidly, and like other ferments there is little limit to the duration of its action. It is still actively present in the whey, and if it comes in contact with the casein, as the casein of the cream in a milk modification, it will rapidly convert it into curds. Hence the necessity of bringing the whey to a temperature of 150 deg. F. before adding the cream. This requires but a few moments' time.

We now come to the consideration of

the accuracy of percentage milk modifications, modifications produced at milk laboratories and those produced in the hospital and home. We will consider only fat percentages, as fat is the most variable constituent of cow's milk and the one that concerns us most in infant-feeding. It is generally believed that percentage milk feeding and the term "modified milk" originated with those who were the instigators of the laboratory idea. It will be of interest to many of you to know that percentage feeding was not only worked out some time before the formation of the Walker-Gordon Company, but the ideas were given to the profession in book form by Dr. William Henry Cummings, of Williamstown, Mass., in 1859, in a little book entitled "Food for Babes or Artificial Human Milk and Manner of Preparing and Administering It to Young Children." If any of you have access to this interesting little work by Dr. Cummings and will turn to page 58, there you will find that he says, "The milk adapted for the new-born calf is not suitable for an infant. It must be *modified* or else it will do harm rather than good." He goes on to state that "there is too much cheese in cow's milk and the child can not digest it." He then accurately works out the yearly needs of a child in pounds of butter, proteid and sugar, which he estimates at 25, 17 and 90, respectively, for a year's feeding, for an average child. Then he proves the inadequacy of cow's milk as a substitute, showing that in the same quantity of milk a child would get but 16½ pounds of fat in a year's feeding, but a great increase in the casein. He further gives specific dilutions for various ages, suiting the modification to the changes incident to development in the child.

It is said that Liebig had it so arranged that his prescriptions for infants' food, which consisted in the addition of maltose to cow's milk, were filled at an ordinary pharmacy and that other physicians patronized these places. Liebig's object was to bring about conditions that exist in woman's milk. This is another evidence of the adage, "There is nothing new under the sun," and would seem to detract from the claim of the laboratory people that they were the originators of the percentage method of feeding. However, as they have popularized this method they are entitled to the honor that should come from its general adoption.

Milk laboratories claim for their product accurate percentages and clean milk. It is upon these claims that their success depends. There has been some dissatisfaction with laboratory milk, both on the part of the profession and the laity. We think that Dr. Morse[1] is justified when he says that "much of the criticism has come from physicians who have failed to appreciate the purpose and capabilities of the laboratory; that some physicians seem to have found the laboratory a convenient scapegoat to account for the lack of development of certain babies, fed on laboratory milk prepared according to their own directions." "It has been much easier and more conducive to their self-respect to attribute the failure to the laboratories rather than to their own imperfect methods of prescribing," and that "the laity are inclined to exaggerate every mistake made by the laboratory and minimize their own."

[1]Jour. Mich. State Med. Soc. Vol. 4, 1905.

However, knowing the above to be true we cannot help being impressed with certain facts that confront us. We must stand with those who give obeisance to the sentiment, "to the law and to the testimony." Does the Walker-Gordon Company live up to its claims? By reference to Dr. Wentworth's series of analyses[2] of laboratory milk modification, part of which we incorporate below, it will be seen that frequently inaccurate products are dispensed.

ADAPTED FROM DR. WENTWORTH'S REPORT

		Formula Ordered	Formula Supplied
No.	Date	Fat	Fat
1	Dec. 18, 1901	4.	4.2
2	Dec. 19, 1901	3.5	2 5
3	Dec. 19, 1901	3.	2.6
4	Dec. 20, 1901	4.	3.5
5	Dec. 20, 1901	3.5	3.2
6	Dec. 21, 1901	1.5	1.6
7	Dec. 21, 1901	4.	3.6
8	Dec. 23, 1901	3.5	2.8
9	Dec. 24, 1901	3.5	3.5
10	Dec. 24, 1901	4.	4.2
11	Dec. 25, 1901	4.	3.4
12	Dec. 26, 1901	3.5	3.2
13	Dec. 30, 1901	4.	3.4
14	Jan. 3, 1902	3.	2.2
15	Jan. 7, 1902	3.	2.6
16	Jan. 9, 1902	1.	1.
17	Jan. 15, 1902	3.	2.4
18	Jan. 23, 1902	3.	2.3
19	Jan. 24, 1902	3.	2.3
20	Jan. 27, 1902	4.	3.3
21	Jan. 29, 1902	2.	1.3
22	Feb. 28, 1902	4.	3.
23	March 7, 1902	3.5	2.
24	March 15, 1902	4.	3.1
25	March 18, 1902	4.	3.4
26	March 24, 1902	4.	3.1

Out of 26 different samples only two gave the percentage of fat prescribed (Nos. 9 and 16). One gave 1 per cent too litle fat, No. 22. In 15 of those analyzed too little fat was found, an error of ½ per cent or more in each case. This impresses us as a difference too great for a company making such claims, especially as with but two exceptions the error was a lowering of the fat content. Thesc experiments were made four years ago, but there ought not to be any reason to believe that conditions at the present time are any better than they were then. The argument used against the commercial baby foods is that they do not furnish proper amounts of fat and this series of analyses seems to show that the laboratory milk is in reality little better.

The question naturally arises, where is the fault? We have no reason to think that the company's intentions are not good. In its infancy, and of late years, it has delivered milk with exact prescribed percentages. It is not at all improbable that success has brought to it, as to many prosperous business concerns, a feeling of self-security protected too by its patent, consequently carelessness has crept in, particularly on the part of the employees. One of us visited the principal Walker-Gordon laboratory in Boston last summer, in company with a lay friend. The laboratory is pictured as perfect in its apointments and immaculate in its cleanliness. What greeted the eye, however, was not even the cleanliness of a down town butcher shop, nor could we be impressed that it was sterilized uncleanliness. The man at the rack was juggling prescriptions, it seemed to us, at the rate of 50 per minute. Occasionally a little milk slopped over. It did not seem to us that the care of a drug store prescription clerk was given to the combining of the various constituents of the milk modifications. A visit the same day to the Floating Hospital showed an entirely different state of affairs. There home modifications were being prepared by the physicians, nurses and mothers. Cleanliness was paramount, even though their quarters were much crowded.

[2]Boston Med. and Surg. Jour., June 26, 1902.

The Walker-Gordon Company had difficulty in obtaining a patent on percentage milk modification. It is generally known that it was owing to Dr. Rotch's influence that it was finally obtained. In a letter presented to the patent office at Washington by the Walker-Gordon Company, Dr. Rotch says, "It is of the greatest importance to physicians that this process should be protected in every way, as it is a question of many babies' lives being saved by it in the future. Unless protected and under careful supervision great harm may be done by the misuse of this new instrument of precision which you have placed in our hands and which the physicians of the future will surely thank you for." Dr. Rotch, the instigator of the laboratory idea, has no financial interest in the concern. He has simply been a zealous promoter of what ought to be an ideal system and has worked unselfishly.

The patent was granted, a peculiar patent, which cut off competition, the most wholesome stimulant for the promotion of superior articles. It is indeed fortunate that there can be no patent to prevent one from carrying out similar operations in the home. Our experiments with home modifications, by nurses and mothers, show that the results obtained are generally more accurate than laboratory modifications, at least so far as the fat content is concerned. The large bulk of the population is scattered through rural districts. They do not need Walker-Gordon laboratories. But they *must* have clean and uninfected milk. The medical profession and enlightened mothers can arrange the rest—patents are unnecessary. It would be hard to improve upon the Walker-Gordon milk as it is received from their farms. The conditions at the farms are said to be excellent. The cows are well chosen and their feed carefully regulated. All the cows have been tested with the tuberculin test. This is a great advantage over the ordinary herd milk as delivered in towns. It is a question whether this high grade milk may not more than compensate for the differences in the percentages of the modified milk. There may be some good reasons for such a patent, but we fail to see the benefits to the public, to the babies, for whose benefit the patent was granted. Other concerns of great magnitude have prospered, as the Mellin's Food Company, without patents or copyrights. We think that the patent was unnecessary and has been the means of retarding the furtherance of what might be a great boon to bottle fed babies if properly controlled.

The laboratory idea is a good one, but equally good if not beter results will be obtained in the rural districts by intelligent home modification. It will doubtless be only a matter of a few years before the state of Michigan through the efforts of the State Society, which represents the profession of the state, will require that all cows used for dairy purposes be proved to be free from tuberculous infection by means of the tuberculin reaction. Under present conditions we think that the dairymen are in a sense justified in objecting to the test. This objection is, of course, purely commercial. They can not appreciate why they should lose the value of a cow or part of a herd because a tuberculin reaction has been obtained. It would seem only just that the state fur-

nish cows of standard breeding to replace the diseased cows. There is no other article of food that is more generally used than milk and the various food products manufactured from milk.

There are very few infants that can not be fed on modified cow's milk if the principles of milk modification are thoroughly comprehended by the physician. The question of the superiority of one sugar or one alkali over another is a subject worthy of much attention, but for lack of time can not be discussed here.

Discussion.

Dr. J. A. Wessenger, of Ann Arbor, in opening the discussion said: The question of milk supply at Ann Arbor has a two-fold interest to me. As health officer and under the laws of our city, it becomes my duty to see to it that the best possible milk supply is furnished by the dealer to our people. I must acknowledge most valuable assistance by our milk inspector, and also by the able corps of workers who administer the affairs of the Department of Pediatrics at the University of Michigan. These valuable charts and tables you see before you today for the first time, indicate a new line of work, never before presented before this society. The work is only in its incipiency. We hope to accomplish much as the years roll on. And as the matter comes before you, as it shall, from time to time, may it have the stamp of progress until a well nigh perfect milk supply is the rule among our rural cities.

Then again, into the very incipiency of life the problem of proper food enters. The first cry of the new-born infant is nature's utterance for sustenance. How many thousands of babies today owe their existence to artificial feeding! What a miserable existence it is many times! Will you tell me how many lives are blasted and thrown into degeneracy through the careless and improper feeding of the infant? Is it important therefore that we have a proper milk supply? The duties of the health officer along these lines are very plain therefore, and drastic measures many times become necessary. Yet I dare say that with the average health official, recompense for work done is not the motive power, he does his work on account of its importance and in disregard of the ofttimes miserable pittance he may receive.

Now if you will glance at these charts for a moment you will notice quite a marked variation in fat per cent, and also in total acidity. The requirements adopted to begin with are that the milk must contain 3.5 fat per cent and must not be over 25 in total acidity. Whenever the product comes below these the dealer is promptly notified, the defects pointed out to him, improvements suggested and *surveillance* kept over his product. In this way we have gotten rid of the most undesirable of the dairymen. In one instance we had reason to believe the milk to be below fat requirements. I sent the inspector for a sample; just before it came into his hands the lady of the house, very slyly as she thought, added some cream to the specimen. Analysis gave 10 per cent fat which was too high for milk and much too low for cream, since the cream requirement is 20 per cent. We promptly notified this dairy that their cream was much too low and unless a better article could be furnished their license would be revoked. The trick has not been repeated by this dairy. In another case where the dairyman persisted in doing things contrary to orders we revoked his license. We next prosecuted and fined him for selling without a license. After this he cleaned his stables fairly well for a time, but he was taken with a relapse. His license was again revoked, with the result that he is permanently out of the milk business as far as the city supply is concerned.

Just a word bearing upon percentage feeding. I need hardly say that such feeding is scientific and therefore accurate; every well-informed physician knows this and should therefore practice it. In regard to milk modification, I am thoroughly satisfied that this can be carried out in every well regulated home just as well if not better than under a patent, secret system where the work is sometimes done in a very perfunctory way.

Dr. W. E. Coates, Manistee: My experience would not lead me to believe that the milk supply of the smaller towns is better than it is in the cities. I have found conditions about as bad as they could be and very little evidence of milk dealers showing any desire to improve conditions.

Dr. R. S. Rowland, Detroit: Any work like

the present paper which helps the profession and the general public to appreciate the importance of pure, clean milk and enables a city health department to improve the standard of the milk supply is to be greatly commended.

My own experience does not allow me to agree with the doctors in regard to their criticism of the milk laboratory or the statement that home modifications are more accurate and satisfactory than laboratory preparation. The first essential for an accurate modification is to know the fat per centage of the milk to be used. In home modification this can only be determined occasionally, while in the laboratory it is determined every day.

In a critical examination of percentage modifications put up in the laboratory and by nurses, I was surprised at the accuracy. The error being less than 0.2 per cent in most instances.

The chief function of the milk laboratory is to furnish pure, clean milk, safe for babies. In my opinion it has been one of the largest factors in educating the profession and laity to a proper appreciation of this point. If its standard is lived up to, the milk is modified more accurately than the average mother can do it. In regard as to which is the better way, my experience has shown me that sometimes home modification succeeds where the laboratory mixture fails, but the reverse is more often true. We owe the milk laboratories much and should be willing to admit it.

THE CLINICAL EXAMINATION OF THE INFANT'S STOOL*

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The inspection of the sick baby's napkin by the visiting physician is usually performed as regularly and solemnly as those two other mysterious functions handed down from prehistoric members of the profession, the "feeling the pulse" and "seeing" the tongue. Of the three the examination of the stool probably gives the least information to the usual observer. This is true in spite of the fact that from Hippocrates down, infants' stools have been discussed in medical writings. The number of stools, the consistency, the color, the presence of blood, of a very foul odor, or of a gross parasite, cover about the extent of ordinary observations. One glance shows him that the child has an intestinal disturbance. A dose of castor oil and a restricted diet for a day or two will settle many acute cases beautifully.

But modern times have brought their own problems, and in one of them the more careful examination of the infant's stool plays a very prominent part. The decreasing ability of white women to nurse their children has made the search for an efficient substitute food a question of world-wide importance. The enormous growth of modern cities has created conditions which interfere very seriously with the quality of fresh milk offered for public consumption. From these causes come principally digestive disturbances in infancy, and it can be positively stated that the single glance at the stool and the castor oil prescription will never succeed in curing a di-

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gestive disturbance depending upon a persistent faulty diet.

In 1899, Biedert (Archiv. f. Kinderheilk.) asserted that the examination of the infant's stool was the most important criterion for the determination of the nature of the digestive disturbance and the therapeutic measures to be applied. Since that time numerous observers have found that in a general way this dictum is true, and that regular and systematic examination of the stools gives information of great practical importance. This is possible because of the simple and limited diet of the infant. Knowing the characteristics of the normal stool, one can recognize the pathologic elements. If the stool indicates a disturbance of carbohydrate digestion, one has a very definite indication for successfully changing the food. The same is true of proteid indigestion, or of disturbances due to fats. If a food disagrees with a child, what can be more rational than to examine the stool and ascertain the element which has not been successfully digested and then to correct the diet with this knowledge of the disturbing factor?

Although unwise parents or nurses sometimes allow infants to eat substances which are not only useless but harmful to them, one may in general divide the food of infants into three classes: 1. Mother's milk. 2. Cow's milk and its modifications. 3. Carbohydrate prepared foods. The composition of the stool is, of course, dependent primarily upon the kind of food digested, and secondarily upon the efficiency of digestion, the length of time food remains in the canal, the bacterial flora, and such accidental elements as may be due to the presence of disease.

While there are many things concerning the digestive processes of infancy concerning which we are ignorant, we know that the intestine of the infant is comparatively very imperfect and helpless against dietetic insults—having normally efficient digestive power for just one food—its own mother's milk. The mouth of the infant is toothless, its stomach has no fundus, and the digestive fluids are reduced in quantity.

It is believed that the albumin of mother's milk leaves the stomach practically all in solution. With plain cow's milk, on the contrary, practically all the albumin passes through the pylorus undissolved. The dissolved proteids are quickly absorbed in the intestines, and to this fact is due the absence of foul odors from the stool of the normal breast-fed child, while from the delayed absorption and the presence of proteid in the intestine come the alkaline reaction and slight putrefactive odor of the normal stool from cow's milk.

A recent stool is desirable for examination. One can often be obtained by the insertion of a soap suppository. If passed in the physician's presence, he can observe the force with which the feces are expelled, the presence of gas, the proportion of fluid, and the odor—all important points. If the mother is fairly intelligent, however, one can usually obtain much of this information from her. Fortunately the other essential characteristics of the stool are fairly well preserved if left in the original diaper. This is the usual form in which the stool is seen by the physician, and a systematic examination may be carried out in something like the following manner:

1. Careful macroscopic inspection.

2. Get the odor carefully. This will often put one on the track of the cause of the disturbance at once.

3. Crush a lump and determine color and consistence.

4. Moisten a teasing needle in the center of a bolus and rub it over both red and blue litmus.

5. Mount a small bit under a coverglass. After inspecting this with a low-power one may verify the presence of fat by, 1, heating the slide; 2, adding osmic acid; or, 3, adding ether. Starch granules may be shown in a second slide by staining with Lugol's solution.

By inspection one determines the general character of the stool, uniformity, proportion of fluid, presence of foreign bodies, parasites, food remains, mucus, and blood. Of these it will only be mentioned in passing that excepting the meconium, mucus is never normally present in a child's stool barring a barely visible network over the surface of a hard fecal mass. If blood is present it is of great importance to determine the source.

The odor is often pathognomonic, when a child's diet is confined to one of the three sources before mentioned. The normal breast stool has an aromatic odor not unpleasant, and quite characteristic. The normal cow's milk stool has always a slightly fecal odor. On a carbohydrate diet, the odor is rather sour. By combined methods of feeding the odors naturally fail to be characteristic and all degrees between the normal and pathologic conditions occur.

Color—The color of a stool is to be judged from the central part of a fresh movement. The changes in tint which often occur on the surface after a stool has been standing have no pathologic significance. If the green is from chromatic bacteria, it will be decolorized by a drop of strong nitric acid. On the other hand, if the green be due to unchanged bile, the addition of nitric acid will afford the usual display of colors familiar in urinary tests for bile.[1]

Meconium is dark brownish green. The normal stool of a breast-fed child is a golden yellow, often a decided orange tint, if the fat percentage be high; cow's milk, whitish yellow; carbohydrates, brownish yellow; strongly dextrinized foods, brown. The color may be influenced by the presence of blood or by drugs, such as calomel, tannin, tannigen, charcoal, dyes, etc.

A frequent appearance in bowel disturbances of all sorts is green color. This is caused by the change of bilirubin to biliverdin, and is usually associated with accelerated peristaltic movements. It has been variously ascribed to the chromogenic action of bacteria,[2] to increased acids, to a strong alkaline reaction in the small bowel, and to an oxidizing ferment.[3]

Consistency.—The normal stool of the breast-fed child is uniformly soft and semi-fluid in character. From cow's milk, well digested, one gets a less fluid stool with a somewhat doughy consistence. On a carbohydrate diet, the normal stool has the consistence of a thick soup or

1. Cotton: Medical Diseases of Infancy and Childhood, 1906.
2. Vaughan: Keating's Encyl. of Dis. of Children, Vol. IV.
3. Wernstadt: Monat's Kinderh., 1905.

purée. The greater the percentage of maltose, however, the thinner will be the stool. If much unchanged starch is fed, the stool may be even firmer than that of cow's milk. Formed stools are common with cow's milk, but not with the other foods.

Reaction.—Normally the stool of a breast-fed child is slightly acid, and if strongly acid or alkaline, trouble may be confidently predicted even if a child seems well. The normal cow's milk stool gives a slightly alkaline test.

Microscopic Examination.—The unit of proteid food-remains in the infant's stool is the casein islet ("caseingerinsel") which consists of casein or mucus usually mixed with fat and salts. The yellow or brown, so-called "Nothnagel's Kernels," occur frequently in normal stools, and seem to have no pathologic signficance.

Fat occurs as neutral fat, free fatty acids, and saponified fat. Neutral fat is in drop form varying in size, and when present in considerable amount may be seen as "lakelets," or in the form of a stick of sealing wax. It may be stained black with osmic acid or be liquefied by heat, as mentioned before. Free fatty acid needles may also be found. The normal stool of a cow's milk diet does not contain fatty acids and irregular forms.

The only microscopic evidence of carbohydrates is the typical layer form of the starch-kernel, which is stained blue with iodin. In the normal stool no unchanged starch is found.

Various other crystals are found in infants' stools, particularly lime salts of organic acids, triple phosphates, cholesterin, etc. So far as we know they have no pathologic significance.

Bacteria predominate in the microscopic picture of the infant's stool. Strassburger has shown (Selter) that one-third the dry content of a stool may consist of bacteria, and in disease this proportion may be doubled. Their identification is, of course, often very difficult, and the part they play is a a very complex and still unsettled question. Fortunately, so far as purely digestive disturbances are concerned, the diagnosis can be made without a bacteriologic examination, and this will not be discussed here.

As in adult dyspepsia, the key to a successful treatment of infantile indigestions lies in the diet. The logical procedure is to find the offending element in the food and eliminate or reduce it. The stool examination enables us to do this in many cases with considerable accuracy. If food elements or their division products, which experience has taught us to regard as pathologic, appear in the stools (whether from failure to be absorbed or from failure to be digested) we are able to cause the disappearance of the pathologic products by withdrawing that element of the food.

Indigestion in infancy may be marked by diarrhea or constipation. If it begins with the latter, sooner or later it is pretty sure to alternate with a diarrhea. More than three movements a day after the fourth day is usually a true diarrhea. The fact that infantile digestion occurs almost entirely in the small bowel is supposed to account for the diarrhea which sooner or later always appears in these difficulties. When the bowel is extremely irritated one may get dis-

charges consisting almost entirely of mucus and fluid. This form usually follows, but may precede, the dejection of offending food material. It is, of course, from the stool containing food remains that one obtains the most information.

In *proteid indigestion* the typical stool contains formed and unformed elements. The formed part is usually white, quite brittle, in small lumps and readily crushes down into small curd-like particles. Where putrefactive processes have been continued for some time, as in the stools immediately following constipation, the consistency may resemble that of fluid cheese. The stool has an extremely foul odor, which is often distinctive. The reaction is strongly alkaline in the early stages. The unformed part is often green.

In *fat diarrhea* one finds a greasy, soapy, shining stool with a peculiar odor resembling rancid butter. The color of stools with excess of fat in breast-fed children is a deep orange; this becomes paler with cow's milk and may be affected, of course, by the presence of other food remains in the stool. The diagnosis is easily made microscopically when one finds fat in one or more of the various forms previously mentioned. The reaction is acid.

When the *carbohydrates* are undigested the disturbance is usually accompanied by a large amount of intestinal gas. This will appear mixed with the stool giving a foamy, splashy appearance which is quite characteristic. The odor is sour; the color is often brown. The reaction is acid. If the food contains an excess of carbohydrate, or starch, which the digestive processes fail to entirely dextrinize, one will sometimes get an exceedingly hard and brittle stool—the hardest stool one ordinarily finds. This is only in the absence of any large number of fermentative organisms and is usually soon succeeded by the splashy stool already described.

Microscopically, one can demonstrate the typical layer form of the starch granules. These ought not to be present at all in a normal stool. In severe cases one will get heavy deposits of mucus and watery stools often squirted from the bowel with considerable force.

Any of these stools may be accompanied by discharges of mucus—in fact not infrequently stools consist entirely of mucus. The thick fluid, viscid, almost stringy stools of homogeneous material usually prove to be largely composed of mucus and fat. Macroscopic mucus in a stool always indicates irritation of the bowel wall.

As a matter of fact, failure of digestion of one element of food will often interfere with the proper digestion of other elements, and more than one may be at fault. The child may have intestinal symptoms from over-feeding or from malnutrition. The least information is obtained from the stool examination in the mixed cases and late stages. One of the uses of this stool examination is in beginning to feed a child recovering from a digestive disorder. By observation of the stool one may determine which elements of food are well borne and which are managed with difficulty.

In accordance with the information obtained from the plan here described, a useful clinical classification of infant diarrheas, which contains the sugges-

tions of more than one writer, would be as follows:

I. *Dyspeptic diarrheas—*

1. Inefficient proteid digestion.
2. Inefficient fat digestion.
3. Inefficient carbohydrate digestion.
4. Combinations of 1, 2 and 3.

II. *Acute Milk Infections—*

Including infectious dysentery, cholera infantum, "blue bacillus" and "streptococcus diarrhea," amoebic dysentery, etc.

III. *Affections of bowel wall—*

Follicular enteritis, ulcerative colitis, etc., rickets, infantile atrophy, tuberculosis, etc.

The logical incompleteness of this classification is fully realized, but as no complete logical and useful classification is possible with our present knowledge, we must do temporarily with a faulty one. The pathology and bacteriology as worked out at present do not afford any immediate bedside therapeutic help. Vaughan wrote (Am. Text. Dis. Chil. p. 479), some years ago: 'It would be as unscientific to attempt a classification of the diarrheas of infancy founded upon pathological anatomy, as it would be to designate acute, sub-acute, and chronic arsenical poisoning as desquamative, catarrhal and ulcerative gastro-enteritis."

With these facts in mind and remembering that these various conditions may merge into each other, it is believed that the above mentioned classification will be found practically useful and therapeutically suggestive at the bedside.

In conclusion, the author begs to acknowledge his special indebtedness to Schmidt and Strassburger's *Feces des Menschen,* and to Selter's monograph on *The Value of the Stool Examination in the Diarrheas of Infants.*

DISCUSSION.

Dr. T. B. Cooley, Detroit: I am very glad that Dr. Rich has brought this subject before us, because I consider it of great importance, and also because it is most surprisingly neglected in the American pediatric literature. One finds occasional references to special appearances in the stools, but I do not remember anything concerning a systematic routine examination of them in any of our standard text books. I have nothing to add to what Dr. Rich has said, except that it requires considerable experience in feces examination to enable one to discriminate accurately between the normal and abnormal, and the various kinds of abnormalities—especially in the microscopic examination. Certain gross abnormalities in consistency, color and odor are comparatively easy to recognize and with a little practice one learns the sharp, sour smell of the fat stool, and its peculiar glistening surface, in the lumps of undigested casein, the strong fecal odor and the excessive alkalinity of proteid indigestion, etc., but the determination of lesser grades of disturbance by microscopic examination is not so easy and requires a certain amount of experience and knowledge. A certain proportion of undigested casein and fat is to be met with in stools that are essentially normal and the microscopic recognition of what is pathologic in a given case can not readily be made by the untrained observer. This stool examination is, however, the most exact and scientific means of diagnosis in most disorders of digestion and should be understood and practiced as a routine procedure by every pediatrist.

I should like to add a few words on another subject which seems to me unduly neglected in

American pediatric practice—namely, the adjustment of the food to the caloric requirements of the infant in proportion to its weight. Great stress is laid upon this point in most of the foreign schools, notably those of Heubner and Biedert, and its importance is so obvious that I cannot understand why, with our exact system of percentage modification, which is far the simplest method for the proper modification of the milk, our books and literature should be almost wholly silent regarding the scientific method of determining the amount of any particular modification that is required for a child of a given weight. Undoubtedly some of our pediatrists understand and practice the principles involved, but it seems to me to be altogether too common to fix upon a modification supposed to be suited to the child's digestion and to regulate the quantity by guess-work, by the child's appetite, or by the amount usually taken by a child of that age. The result is most commonly over-feeding, though sometimes the opposite occurs. I was interested lately in computing the caloric equivalents of the milk prescriptions used in a series of not very successful feeding cases by men who had had a considerable experience in pediatric practice.

The caloric requirements of the infant are usually said to be from 100 to 120 C. per kg. of body weight. Out of ten of these cases which came under my observation no one was receiving an amount of food corresponding to this requirement. Eight were receiving daily from 130 to 200 C. per kg., while the other two received between 80 and 100. It seems to me quite as important that the amount of the food should be adapted to the child's requirements as that the proportions of the different food principles should be correctly adjusted, and in this respect, as well as in respect to feces examination, I think the German practice distinctly in advance of ours. It is a matter of rather complicated calculations to reduce our ounces and pounds to calorics and kilograms, and for this reason I have constructed a table showing the caloric equivalents per ounce of the more commonly used modifications, as well as the kilogram equivalents of all weights up to twenty pounds. Once made, such a table is of great use.

THE USE OF LOCAL ANESTHESIA IN THE TREATMENT OF RECTAL AND ANAL DISEASE*

BY LOUIS J. HIRSCHMAN, M. D.
Detroit

If there is any one department of surgery which has made great progress in the last few years, it is in the production of local anesthesia. Formerly whenever any operative procedure was deemed necessary, either no anesthetic whatever was employed or else the patient was subjected to the dread, discomfort and mayhap danger of general anesthesia.

Constitutional diseases, age, and the patient's dread of the loss of consciousness, however, caused surgeons to cast about for some good substitute for general anesthesia in suitable cases. Of course the use of cocain as a local anesthetic has been somewhat generally employed for several decades, but only in the most minor procedures and in certain special lines of work. Within the last five years, however, the use of local anesthesia has been gaining ground rapidly. Beside the simpler operations in the realms of ophthalmology, laryngology and genito-urinary surgery, many major operations such as exploratory laparotomy, herni-

*Read before the Surgical Section at the Jackson Meeting of the Michigan State Medical Society and approved for publication by the Publication Committee.

otomy, colostomy, thyroidectomy and various amputations have been successfully performed without the use of a general anesthetic agent.

In proctologic surgery the use of local anesthesia has had a most widespread influence and is responsible in no small degree for the great progress made by this specialty in recent years. The patient who is suffering from rectal or anal disease, the most common of which is "piles," has, by judicious newspaper advertising, on the part of the nostrum vendor and the quack, been educated to a dread of the knife, or any so-called operative measure. The great dread of the patient has been, not so much the actual operation as the fear of the general anesthetic; and, preying upon the patient's abhorrence of general anesthesia, the unscrupulous and the irregular practitioner has subjected many an unfortunate to the long drawn out torture of the so-called "injection treatment," when a mere clean cut radical operation, under local anesthesia, would have relieved the patient in a fraction of the time and with fractional expense and suffering. The suggestion of general anesthesia, operation in the hospital and confinement to bed in not a small number of cases alarms the patient so much that treatment is rejected, and the patient passes into the hands of the quack and the charlatan with his so-called non-operative sure cures. With local anesthesia the patient can be operated upon at his home or in your office, and in a great many instances without detention from business and without confinement to bed.

Local anesthesia is of the greatest assistance, not only in operative procedures in office work, but also as a preliminary to local treatment work. The sphincters can be successfully and satisfactorily dilated under local anesthesia, and this in itself is a great step in advance in ano-rectal work. Tuttle, of New York, first demonstrated that the injection of twenty to thirty minims of a half per cent solution of cocain into the sphincter muscles at the point of entrance of the lesser sphincterian nerves, just on either side of the posterior commissure, will enable us to dilate this muscle, as much as is necessary for all practical purposes, with comparatively no pain. This does not mean that the sphincter can be divulsed as under a general anesthetic, but it can be stretched sufficiently to enable us to do a great many anal and rectal operations with comparatively no pain, either at the time of operation or following it. Having had two or three rather alarming experiences following the injection and application of cocain solutions in the office treatment of rectal and anal disease, I have discarded, to a large extent, its use, and I find weak solutions of beta-eucain lactate, chloretone or alypin anesthetizes fully as well, and their absorption produces no tangible toxic effect. In suitable cases distension anesthesia by the injection into the tissues of sterile water or salt solution is entirely feasible, and has proved very satisfactory in my hands in about 60 cases. Of course one must choose his cases. Internal hemorrhoids, external hemorrhoids and thrombotic hemorrhoids, polypi and fissures, when not surrounded by large infiltrated tissue or old scar, as well as tumors of the buttocks, in fact any condition which is situated in tis-

sues which can be distended to whiteness can be successfully operated upon under distension anesthesia.

Operations which require cutting into the deeper structures, however, are not amenable to this form of anesthesia. Mild solutions of eucain, for instance a quarter of one per cent. solution, or a saturated solution of chloretone, has proved very satisfactory in the deeper operations.

Dilatation of the sphincter for purposes of examination or as a preliminary to other operative procedure, can be done equally well under the distension anesthesia with mild solutions of these various anesthetic drugs as under the injection of the one-half per cent. solution of cocain.

The technic of this procedure is, briefly, as follows: The graduated glass syringe, which is connected with a long fine needle by means of a one-half inch piece of rubber tubing, is filled with the anesthetic solution. A point about one-half inch back of the outer edge of the posterior commissure of the sphincter muscles is selected. The needle is passed inward and upward to each side of the sphincter in a Y shaped or V shaped direction for one-half to three-quarters of an inch, keeping from one-half to five-eighths of an inch from the inner border of the sphincter. The solution is injected until distension is produced, when the sphincteric nerves will be anesthetized. The injection should be made slowly and a minute or two allowed to elapse before distension is commenced; then slowly with a kneading motion, with the fingers, stretch the sphincter. It is important that this procedure should not be done hastily, as it is not necessary to rupture the muscular fibres in order to sufficiently stretch the sphincters.

Internal hemorrhoids, prolapsed mucous membrane and polypi can be brought down and distended by either sterile water or weak anesthetic solutions and removed either by the ligature or by excision, either with or without the clamp and cautery. Fissures can be successfully incised or dissected out after distension, ulcers cauterized, hypertrophied papillae distended and removed; in fact, any intra-rectal operation in which the tissues can be successfully filled with anesthetic solution can be done by local anesthesia. External skin tags, simple fistulae, and thrombotic hemorrhoids can be dealt with in a like manner, provided always that the tissues are distended to whiteness; for without distension, we do not get complete anesthesia.

It is necessary in order to successfully do surgery in this region under local anesthesia, to operate with great rapidity. One should be equipped with the proper instruments and should employ the simplest technic consistent with good work, and no operation under local anesthesia should exceed twenty minutes' duration. One should not do surgical work of this nature in his office unless he has a properly equipped operating room with sterilizers, aseptic operating table and furniture, and everything which is necessary for modern thorough aseptic surgery.

In local treatment work and examinations, a tight and sensitive sphincter can be anesthetized, as above outlined, and treatment given in a pleasant and painless manner. In the author's special work

along this line, both in office work and hospital service, he has used local anesthesia hundreds of times with almost uniform success. In not over a dozen cases has it been necessary to administer a general anesthetic to complete any operative procedure, and that usually where the patient was more frightened than hurt.

I have successfully done exploratory laparotomies, colostomy and the closure of the temporary artificial anus under local anesthesia with very satisfactory results. In fact, so much has been accomplished under local anesthesia that the administration of a general anesthetic in the line of anal and rectal surgery is almost the exception instead of the rule.

Discussion.

Dr. W. L. Dickinson, Saginaw: It is advisable in operating for fistula in ano to give a general anesthetic because there may be found several tracts which require an extensive dissection. Rectal work under local anesthesia is sometimes not entirely painless, but as a rule is satisfactory.

Dr. Edwin Elliott, Chesaning, spoke of difficulty he had had in dilating the sphincter under local anesthesia; perhaps it was because he had not always distended the tissues to whiteness.

Dr. H. O. Walker, Detroit, had injected powdered cocaine or eucaine into the spinal cord for prostatectomies. Local anesthesia should be used more.

Dr. Hirschman: Sphincter cannot usually be fully divulsed under local anesthesia without some pain, but for most procedures it is not necessary to dilate beyond the point at which pain is felt.

The Lenhartz Treatment of Gastric Ulcer at the Eppendorfer Krankenhaus.—HABERMAN, in describing the Lenhartz treatment, says that this investigator, in his search for a diet for cases of gastric ulcer, tried concentrated egg-albumin diet. It was especially desired to combat the hyperchlorhydria, reinforcing at the same time the enfeebled and anemic condition of the patient. The concentrated egg-albumin diet after being tried in many cases, was followed by such excellent results that this method became the routine hospital treatment at the Eppendorfer Krankenhaus. The writer gives the following tabulated treatment of gastric ulcer: Absolute rest in bed for at least four weeks; avoidance of all mental excitement; the almost continual use of an ice-bag over the stomach for two weeks; the administration of between 200 and 300 c. c. of iced milk, given in spoonfuls and two to four beaten eggs; the administration, for ten days, of 2.0 g. of bismuth subnitrate at a dose. The eggs are beaten up entire, with a little sugar and the dish containing them is placed in a receptacle filled with ice; sometimes a little wine is added. This food at once "binds" the supersecretive acid, mitigates the pain, and causes the vomiting to cease. After a few days some raw chopped meat is given. In the third week quite a mixed diet is allowable.—*Medical Record,* June 16, 1906.

Kidney Fixation.—From his experience with the operation, J. H. CARSTENS, Detroit, Mich. concludes that movable kidneys can be permanently fixed by proper technic. A correct diagnosis must be made prior to operation, and any reasonable doubt as to the kidney being the cause of the trouble must be removed. Of course operation can not relieve such organic conditions as gastric cancer, bowel obstructions, etc. He gives a condensed report of twenty-five cases occurring in his practice which he thinks ought to give a fair average of general results. In all cases the kidney remained in place. He also found that fixing a loose kidney and decapsulating it pretty thoroughly, relieves, he thinks he might say cures, the early stages of Bright's disease. He has never lost a case, and thinks the mortality should be absolutely *nil.* He keeps the patient in bed 15 or 16 days and allows them to leave the hospital in three weeks.—*J. A. M. A.,* May 12, 1906.

MEDICAL INSPECTION OF SCHOOLS*

ELLIOTT KENT HERDMAN, M. D.
Ann Arbor.

The existence of disease is more profitable to the physician than its dissipation; and yet the members of our profession who discover a prophylatic rather than a curative measure are the men who are best suited to guard the physical welfare of their fellow-men. And in this age, all recognize that the *great* effort should be to *prevent* rather than cure disease.

Medical inspection of schools is a marked stride in modern sanitation and education, for it not only means establishing and preserving the health of this, but of the coming generation. The government of this and other states makes it compulsory for a child to attend the public school, and should therefore supervise the physical welfare, as well as the mental improvement and development of the child.

The paramount importance of proper and well regulated school life is therefore clearly apparent and modern educators should appreciate that because of the responsible position occupied by them, it is their duty to carefully guard the body as well as the mind of the youthful generation entrusted to their charge, because many of the distressing diseases incident to human existence can be traced to the "school-life" of the sufferer.

The responsibility of the present to the coming generation regarding school-life is therefore enormous and involves all such questions as the proper location of school buildings with regard to pure air and good drainage, the construction of the building itself, with regard to window space and direction of light; the tendency to overcrowding, the use of proper drinking water, the providing of clean wash-bowls, towels and soap, the construction of desks in sizes corresponding to the children in the one room, so that the pupil may firmly plant his feet on the floor and always occupy the same relative position to his desk, as he grows.

School desks should be of a proper slant and height so as to compel an upright position of the body in reading and writing, thus lessening the tendency to contracted chests and distorted spines, which are the prime factors in the production of consumption and spinal disease.

Another of the most important duties of these educators is to insure that contagious diseases are excluded from the schools. This charge is given to the Medical School Inspector, who should devise proper quarantine regulations and proper "ways and means" intended to exercise a beneficial care over the hearing, sight and general good health of the rising generation. These points and

*Read before the Ninth General onference of Health Officers of Michigan Grand Rapids, June 1, 1906.

many others will appeal to you, brother physicians, having under your control the health and morals of these embryo men and women.

However in the daily routine of medical inspection of our public schools, failure to view things from the *school position* and to subordinate medical precautions to their relative position would readily result in want of confidence by the public at large and even foster hostility toward this work. Therefore, I regard the teachers as my colleagues who can lend valuable services, and I endeavor at all times, to act reasonably, keeping in mind the fact that the school is chiefly for educational purposes, and that any extraordinary details as to prophylaxis which might be deemed advisable in dealing with a case in private practice, are quite out of reason in the schools.

The medical inspection of schools as carried on in Ann Arbor has met with general approval, and one of the most marked results, noticed by both the teachers and myself, is the fact that parents have been taught to be more careful of their children, and pay more particular attention to their general health. Also more attention is paid to the personal appearance and cleanliness of the children as well as to their physical condition.

The primary object of medical inspection of school children is to *prevent* and stamp out communicable diseases. This is done by excluding from school any child suffering with such a disease and subsequently carefully watching the other children, who may have been exposed, also preventing the attendance at school of a child coming from a home or family where others with whom it comes in immediate contact are suffering from contagious diseases. Then, too, there are children who must be sought out who are suffering from diseases that are not necessarily contagious or who are suffering from physical defects that can be remedied, for all these things interfere with a child's progress in school. Under this head comes the defects of the eyes, ears, nose, throat, etc.

Another field of work for the medical inspector of schools is in dealing with that class of children found in every public school which are "exceptional" which is the term suggested by Mr. E. L. Stevens, associate superintendent of the New York city schools, in place of "defective" which he considers objectionable for many reasons. Dull and defective children have always been found among the intelligent in public schools. Public attention was aroused to the needs of this class in Germany several years ago, and a very large number of children in that country are now cared for in "special schools." In England such are designated as "special schools for feeble-minded and backward children," and they are assuming an important position.

The ratio of these children to the total school population in any community may vary, but statistics collected in different countries lead to the conclusion that probably one per cent are so dull or defective that they cannot be taught in the ordinary school classes.

Special thought must be given also to the relations of the child's physical growth and development to its capacity

for mental labor.

I am persuaded that a series of tests should be made in all our public school buildings to determine the quality and quantity of the ventilation. The quantity of carbon dioxide in the outside air is always greater in cities than in the country. Authorities differ as to the exact quantity of carbon dioxide admissible in school rooms where a large number of pupils are confined, but most of the best sanitarians state that it must not exceed seven (7) parts in 10,000. Dr. Guy L. Kiefer, of Detroit, found by tests that invariably in Detroit schools where the amount of carbon dioxide was high, i. e., above nine (9) parts in 10,000, the number of cases of communicable diseases was correspondingly large. This is a fact that should not be lightly passed over.

As to the heating of our school rooms, I would state that in my opinion the trouble is to keep them from becoming too warm. The best work is done in a school room with the thermometer at 68° or possibly 70°.

Upon making my daily rounds of the schools I am constantly watching the pupils for any signs or symptoms of the more common contagious diseases. For it is well understood that one child *may* infect a large percentage of the children in attendance at school, often causing a loss of days and even weeks of the school year to the delicate child who may suffer from complications of these contagious diseases. "The child is father to the man, and as the child is so will be the man." If we have a *perfect* child we may look for a *perfect* man.

One of the most frequent sequelea or complications of the common contagious diseases are "ear troubles," and in dealing with these troubles the hardest tradition of the laity to overcome is the assertion that "the child will outgrow its ear ailment." This is a fallacy, they *will not* "cure themselves."

More than 75% of ear diseases have their beginning in early childhood, and if untreated or improperly managed, 90% of this number will go on indefinitely and become incurable—chronic.

The specialist will agree that there are but very few of the diseases of the organ of hearing that were not at some time during their history entirely curable, *and that time was in early childhood,* the time when the ailment was first noticed, when the *cause* of the trouble was as yet partially, if not entirely, dependent upon the condition of the throat and nose and was, therefore, entirely removable. Yet another mistaken idea entertained by many is the belief that a *discharging* ear is harmless, trivial, or even beneficial in some cases. Such statements are based upon their entire lack of knowledge as to the *cause* of the discharge and the possible serious results of its long continuance. Pus, wherever formed and discharged, is always the result of necrosis of some tissue. If this should occur on the surface of the body, the necrosis may cause no further trouble than an unsightly scar, but in the small cavity of the middle ear, the deposit or scar tissue formed will derange every normal function of this portion of the hearing apparatus. And this is what inevitably happens sooner or later in many cases of chronic discharging ears of children. *Another graver danger of chronic suppuration in the ear is to the life of the individual.*

We must remember the intimate relation of the cavity of the middle ear to the brain, sigmoid sinus, and carotid artery; the process of necrosis in the middle ear cannot go on indefinitely without invading some of these important structures. It is a well-known fact that insurance companies realizing the possibility of these grave results, following a suppurating ear will reject an applicant known "to have a chronic suppurating ear with extensive necrosis of adjacent parts." The medical inspector of schools must therefore be always on the lookout for ear troubles and when he finds them, use every means in his power to have the parents give the child proper attention.

Without sound dental organs there can not be perfect digestion, nor perfect health. Early attention to the teeth is one of the most powerful factors in the make-up of a sound body. Therefore, this is another field for the inspector's supervision.

The diseases for which I have excluded children from the Ann Arbor public schools are scarlet fever, tonsilitis, measles, diphtheria, rötheln, mumps, smallpox, chickenpox, whooping-cough, pediculosis, ringworm, impetigo, scabies, contagious eye diseases, and offensive ear or skin troubles, tuberculosis, and syphilis. There are probably no other diseases in which an error of diagnosis is more fatal alike to the physician, the patient and in fact a whole community, than the acute infectious diseases. The medical inspector must, therefore, be constantly on guard against any or all of these dread maladies. The more common one of late that we have had to contend with is scarlet fever. One authority has recently said that according to his observations the desquamation period of this disease is not, as is generally believed, the most contagious period, as many children have not contracted the disease when exposed to desquamating scarlet fever patients. He believes the contagium to be more readily transmitted through *various discharges,* such as of the nose, ear and throat, than through the instrumentality of the desquamated epithelium. This theory being correct, you can appreciate the necessity of discovering the disease in its incipiency and remove the child suffering with scarlet fever from the school room immediately, upon discovering the case.

Whenever a child is excluded on account of a disease required by the State Board of Health to be quarantined, notice is immediately given the Health Officer and the school, or at least the room from which the child was taken, is promptly and thoroughly disinfected.

A discussion of far-reaching interest has taken place in the French Academy of Medicine on the subject of class books as disseminators of contagion in schools, especially in the cases of such diseases as scarlet fever, measles and diphtheria. Paper has long been recognized as a dangerous agent of infection, even in tuberculosis, owing to the habit among children of turning over leaves with fingers wetted with saliva. Dr. Lop, in order to test the danger in school books, made long experiments to establish the duration of infective power in various bacilli, finding it to range from 48 hours for some to 60 days for the Eberth, and 103 days for the Koch bacillus. General agreement was expressed as to the

importance of thorough disinfection of school materials.

I regard the examination of the eyes of school children as of equal importance with the exclusion of contagious diseases. For it is the duty of the medical school inspector to counteract the *underlying factors of disease.* This, in my opinion, is more important than to combat disease when actually developed.

The eyes, when defective in refraction or when imperfectly adjusted, constitute an important and commonly neglected factor both in causing and perpetuating disease. Eye strain constitutes an important element in the causation of many nervous disturbances of the so-called "functional" type found in school children. The duration of life is materially shortened by nervous debility, and the diseases which it entails. Eye strain, as a factor in their causation ought, therefore, never to be overlooked. More harm will be done school children by overtaxing their eyes than by overtaxing their brains.

The fallacious arguments that school children should not wear glasses are responsible for many who are to-day struggling along with an optical defect uncorrected. In many instances parents are injuring the health of the child by administering drugs for some "obscure ailment," or other children are blamed for being stupid and dull for a cause that can be remedied by proper attention to their defective eyes. Many "school headaches" and various "nervous symptoms" I have found were due solely to defective vision, of which perhaps the children themselves were unconscious.

The "Snellen's Test Chart for Schools" I have found admirably adapted for convenience and reliability. Since I have adopted this method I have found that nearly 25% of all the children have some visual defect. I would like to give more time to the development of this most important subject, but as the journalists say, "space forbids."

The most common form of eye disease among school children is catarrhal conjunctivitis, the characteristics of which are smarting, burning, watering of the eyes and sometimes sensitiveness to light. This condition is contagious and is undoubtedly of microbic origin, but if seen early can be quickly cured.

Another severe variety of acute catarrhal conjunctivitis, which is known as "pink-eye," is caused in every case by the Koch-Weeks bacillus and is violently contagious.

Trachoma or "granulated lids" is another form of conjunctivitis and is found in the eyes of many school children, usually in a mild form however, giving rise to no very striking symptoms. Often the child does not complain of its eyes at all and the disease is discovered only when the inspector inverts the eye-lids and finds them covered with small elevations. This trouble as well as the other and more severe forms of trachoma is contagious. However, these cases invariably do well under treatment, and if they are placed under the care of a physician, the children are allowed to reenter school, the treatment being sufficient to prevent the infection of other pupils.

I think that a recent rule in Ann Arbor that children must be clean when they attend school has done much to lessen the contagious skin diseases which I found quite prevalent when I began

this work several years ago. Experience proves that dirty habits and uncleanliness of person frequently convert comparatively mild forms of germ diseases into virulent ones.

The more common skin diseases found among school children are impetigo contagiosa, scabies, pediculosis, and ringworm. These are all caused by parasites, either animal or vegetable, which grow in or upon the skin and are transmitted either directly or indirectly from one child to another.

Impetigo contagiosa is a very common disease found in the public schools, often epidemic, as it is highly contagious among children. It is an acute inflammatory disease, due to a pus germ. It is more commonly found to originate in cases of poorly fed, ill-nourished children. However, it is a self-limited disease, and will respond readily to proper treatment. Absolute cleanliness is the most important factor in the management and treatment of this and all other skin diseases.

Scabies is caused by a living animal parasite and is a very common, highly contagious trouble. This is not only peculiar to children, but will attack adults, both sexes, and with no regard to race or color. The most important symptom is the intolerable itching induced by the parasite as it makes its tours of exploration beneath the victim's skin. This disease is purely local, and local treatment is all that is here required. The patient must be careful while under treatment not to become reinfected from clothing worn while suffering with the disease.

Pediculosis is discovered by noting the presence of the ova or nits on the hair shaft. Here, too, proper medication which will destroy the parasite and rid the child of this loathsome trouble.

Ringworm among school children is exhibited in *two* varieties. One form (tinea tonsurans) found only on the scalp, is usually not so amenable to treatment as the fungi are deep down in the hair shaft and medication does not readily reach them. This fungus attacks the scalps of children because of the slight resistance of their skin. And, because of the easy transmission of this disease from one child to another in their close association at school, it would be very deleterious to allow a child seen to be suffering from this trouble to attend classes until entirely cured of the ailment. Disseminated ring-worm of the scalp may last for months or even years. (Cases have been reported lasting nine years). Therefore, this affection should demand the most prompt and thorough treatment.

The second variety of ring-worm (tinea circinata), whose habitat is on the non-hairy portions of the body (the face, neck and wrists being the favorite seat of the trouble in children), is readily cured by the application of local parasiticides. However, ring-worm of the scalp or body should not be considered lightly by the medical inspector, or the parents of school children, for without proper precautions many infections are sure to occur. One child suffering with *any* one of these troubles may infect a large percentage of its schoolmates.

Children while suffering with tonsilitis, or "sore throat," should not be permitted to attend school, as we can never predict the outcome of a seemingly "mild sore throat." Nor can we tell

what dangerous germs are lurking there which later may produce a more serious trouble (such as diphtheria) in this child, or some susceptible school-mate.

The attention of parents should be called to the fact when a child is suffering from an "irritating cough," for this if allowed to go on indefinitely may bring dire results.

In making a throat examination a thin, smooth piece of wood about six inches long is used as a tongue depressor. These are used but once, then immediately destroyed.

Children who are found to be tuberculous, or suffering with consumption should be taken from the public schools.

In concluding this paper, I would state, that in briefly mentioning these various diseases I have by no means compiled a complete list of the disorders and ailments, (contagious or otherwise) that the medical inspector of schools will find among school children in making his daily rounds. It simply shows the necessity of careful, painstaking, watchfulness that must be exercised by the inspector if he intends to do conscientious work.

When a child is found to be suffering from any ailment for which it should receive attention, a blank form, detached from a stub which is kept for future reference, is filled out and handed to the child with instructions to take this notice home to the parents. This notice is not mandatory in its nature but is meant as a kindly suggestion to the parent. However, if no attention is paid to the first notice, subsequent notices should follow from time to time until the parent is duly impressed with the necessity of attending to the matter by placing the child under the care of the family physician, or any specialist *they may choose* for treatment with regard to the specified ailment.

As a rule parents comply with these suggestions with little or no delay, especially when the notice is the first intimation they have received that *their* child is suffering from some ailment that they had not before observed or of which they may have been entirely ignorant.

The number of children sent home suffering with contagious diseases, many of them just developing, prove that this rigid, daily inspection of the children prevents the development of innumerable cases, and thus not only saves the parents, but the city and county untold expense. In some cities the inspectors are required merely to take the daily reports of the various teachers. I am satisfied from my own experience, that *this is not enough.* A school teacher, however excellent, is no more able to detect disease in the school-room than in the home, and *detection* is all important.

Some patience and tact are required to inaugurate the work of systematic medical inspection of schools in any locality, but the community rapidly adopts it and gives it intelligent support.

Great pain following any operation upon the biliary tract should always lead one to suspect leakage of bile into Morrison's space. If such should be found to be the case insert a drainage tube.

In all cases of acute abdominal pain, never fail to examine the lungs and gums. The onset of pneumonia or pleurisy frequently closely simulates acute appendicitis.

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AUGUST, 1906

Editorial

A Series of Meetings in the Interest of the Profession, to be addressed by Dr. J. N. McCormack, the representative of the American Medical Association, will be held in October. An itinerary is now being arranged, covering twenty-five cities. The trip will begin on Monday, October eighth, and will continue about thirty days.

Doctor McCormack has addressed audiences all over the United States upon popular topics, such as "Things about Doctors which the People Ought to know" and "The Danger to the Public from an Unorganized and Underpaid Medical Profession." In every state visited, it has been the complaint that the doctors and the people did not know beforehand how interesting and helpful the addresses were to be. Let us not make this mistake in Michigan.

Physicians are frequently accused, often perhaps truthfully, of being self satisfied, intolerant of criticism and uninterested in public affairs. We are engrossed, many of us, in the purely scientific side of our profession and give little attention to our relations to one another and to the world at large. Dr. McCormack has traveled about for several years studying these things and conditions, and he may be said to have created "the new specialty of Clinical Medical Sociology."

Commenting on Dr. McCormack's work, the Illinois Medical Journal says:

No man can do the best work of which he is capable so long as he is struggling with practical and financial difficulties. In proportion to the expense of preparation as well as the enormous amount of non-remunerative philanthropic work done by the medical profession, the financial returns to the average physician are far below what they should be. If the doctor were better paid, he could live better, have more leisure for study and research, and so be a better physician and a better citizen, of more value to himself, his family, his individual patients, and the state as well. This does not mean, necessarily, a raising of fees, in the individual case. It means a regulation and readjustment of economic professional conditions.

As scientific men, we must obtain facts before we construct theories. To avoid hasty generalization, our facts must be drawn from all grades of the profession, in all parts of the country. Before our local societies can legislate intelligently and effectively on lodge practice, contract practice, fee tables, insurance and corporation work, and all other questions involved in practical medical ethics, they must know whether the conditions that confront their members are local or general, what the causes of these conditions are, and how other societies have handled them. Only a man of professional training, broad sympathies, keen observation, judicial temperament and frank fearlessness, can supply the needed personal knowledge of

local conditions throughout the country. If nothing else was accomplished thereby, the medical profession could well afford to send a man like Dr. McCormack over the country, in order to learn exactly the conditions that prevail in professional circles.

Having obtained this knowledge, he is now in a position to advise regarding existing local evils. Every member of every county society can learn what difficulties and problems have been encountered by his professional brethren elsewhere and how they were solved. The public can learn of the relation which should exist between physician and patient. The bench, the bar, the clergy, the school board and its teachers, can learn how they can best aid in raising the standard of health and happiness in their town or county. It is the unanimous opinion of the organized profession that, following Dr. McCormack's meetings, a better feeling prevailed both among doctors and on the part of the laity toward doctors, that his talks have everywhere resulted in increased enthusiasm, stimulation of effort, and clearer ideas and plans of work.

Do not forget that these meetings are for the laity as well as for the profession. It is planned to have a prominent layman act as chairman at each meeting.

Completed plans with dates and places of meetings will be given in the September issue.

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The Work on Tuberculosis, which the State Society has this year taken up was mentioned last month. With the possible exception of the work on venereal prophylaxis, the campaign against consumption, which is being planned, is the most important activity yet undertaken by the Society.

We have a splendid organization of two thousand physicians, with branches in all communities, and an established system capable of carrying on a campaign along any line to which we may turn our attention. We exist, not solely for the purpose of holding an annual meeting where papers may be read and discussed. If organization means anything, it means much more than that. It means the banding together of the best physicians of the state into an organization, alive, alert to the needs of our fellow citizens. Recognizing these needs, we should be ever willing to think, to plan, to work toward the betterment of those over whose health we watch. Every opportunity for such betterment should be embraced.

The spreading of knowledge concerning the infectiousness of tuberculosis is an opportunity open to every one of us, and every county society under the leadership of the Committee should take the subject up.

The problem of the stamping out of consumption in Michigan is, however, too broad a one for the medical profession to fight alone. We must have the help of men of all professions, of men and women in all walks of life. But before they can be of help, they must be educated and here is the opportunity for us all. The fight must be begun and directed by us.

It seems curious that a few cases of mild smallpox in one of our cities will well nigh create a panic, yet little attention is paid to tuberculosis, a disease much more deadly, for it kills some 5,000,000 of people every year. Our

Health Boards are accomplishing much, yet they experience great antagonism, not only from the uneducated but from the educated as well. These conditions come about, of course, solely from the ignorance which we are now called upon to dispel.

Ways and means for carrying out a campaign of education will be worked out by the committee. While not yet completely organized, the members have already been active in getting the Tuberculosis Exhibit, recently at Grand Rapids, for Manistee. The City Council of Detroit is awake to the situation and has appropriated $500.00 to bring the exhibit to Detroit. It is to be hoped that it may be seen in every city in the state. It can be, if the members of our society will do their duty and get out and work for it.

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Packingtown Reassurances.—So malodorus was the Neill-Reynolds report to President Roosevelt, and so obvious the public indignation finally focussed through this agency, that even the obtuse olfactory sensibilities of the Chicago packers were affected. It was accordingly deemed expedient to eradicate as far as possible the taint clinging to their establishments and their methods. For this purpose the packers, through their allies in the Illinois Manufacturers' Association and Chicago Commercial Association, set about to "reassure the public" as to Packingtown conditions, and employed a group of "experts" who were commissioned to make a thorough inquiry and to report to their business associates and through them to the public. It is not altogether pleasant to record, in view of the report of this expert commission as set forth in the public press of the United States, that several men of prominence in medical science are named in connection with it, either as principals or accessories. For as is plain to every citizen of average intelligence, and as must be painfully evident to every medical colleague, these experts have furnished a report for the packers which seeks by scientific verbiage to obscure the essential fact that Packingtown is as dirty, as dangerous to public health, and as much of a disgrace to Americans as the Lancet Commission found it, as Upton Sinclair painted it, and as Neill-Reynolds reported it; save possibly that for the expected visit of its own commission it had hurriedly "cleaned house," and trained its operatives to put on "company manners." Even so, and with its best attempt to clothe in verbosity the "clean bill of health for the stockyards," careful reading of the expert's statements will disclose an acknowledgment of existing evils vitally portentious in their danger to public welfare.

Greatly is it to be regretted that this report of physicians who assumably are guardians of the public health did not deal frankly with the existing evils, since it must take rank as the findings of the first group of representatives of the American medical profession to pass upon the Chicago packing houses. Its splendid opportunity of performing a real public service by faithfully portraying the scandalous shortcomings of these establishments and of recommending the only effective remedy—a rebuilding along lines of modern sanitary efficiency of a large portion of Packingtown, and the

institution of methods of common and scientific cleanliness in handling the products—was lost. For the benefit, however, of such a conscientious reformer as President Roosevelt, and to correct a misapprehension in the public mind, it should be made clear that the medical profession of the United States, as a body, does not ratify the report of the packers' experts.

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"Beware the Nefarious Doctors' Trust" is the title of a recent circular sent out by the Proprietary Association. Commenting on this, *Collier's Weekly* says editorially—"The only medical combinations with which we are conversant are devoted mainly to the protection of the public. Most states, and many cities, have volunteer organzations of physicians banded together for the unselfish preservation of the public health. We cannot recall any conspicuous services of patent medicine venders in this line of endeavor. They are committed, rather, to the opposite purpose, that of undermining health by frightening people into illness. When our physicians begin to frighten patients into illness by false diagnoses, when they guarantee cures and then go back on the guarantee, when they undertake to banish incurable disease with secret and mysterious remedies, when they fasten drug habits upon the innocent for their own profit, then it will be time enough for the nostrum trade to rebuke the sin of the doctors."

That honesty is the best policy is, by the way, again demonstrated by *Collier's*. Realizing the duty of a great magazine, the editor took up the patent medicine evil and out of principle refused advertisements, which the previous year netted $77,088. But this sacrifice to logic and principle was unexpectedly offset by new business which more than equalled that which had been lost. It is to the credit of the business public that they have thus recognized that it is better to be represented among clean advertisements, rather than surrounded by announcements of cure alls, cocaine nostrums, "medicinal" whiskies, et al.

Book Notices

Operative Otology, Surgical Pathology, and Treatment of Diseases of the Ear.—By Clarence John Blake, M. D., Professor of Otology in Harvard University, and Henry Ottridge Reik, M. D., Associate in Ophthalmology and Otology Johns Hopkins University, New York and London. D. Appleton & Co., 1906. Price, cloth, $3.50 net.

The authors state that the book (359 pages) has been written in answer to questions asked in the class room, by the bedside, and in consultation, that the detail of surgical procedure has been confined to that acceptably applicable to the conditions presented, and that it was the authors' effort to present the given subject as simply as possible. The authors have admirably carried out their intentions. The chapters on Anatomy, Aseptic Technique, the paragraph on Thrombosis of the Lateral Sinus, the chapter on Adventitious Aural Surgery and also the appendix are at present of especial interest.

The appendix contains short stories or abstracts of articles about the Value of Paracentesis of the Membrana Tympani (by Buerkner), Statistics of House Patients Treated on the Aural Service of the Massachusetts Charitable Eye and Ear Infirmary, a description of the Algesimeter and its promise as a useful adjunct in diagnosis, the localizing symptoms of Brain Abscess (Waterman, Boston), the removal of the stapes for the relief of Auditory Vertigo and when to apply it (Crockett, Boston); hearing tests as an aid in locating tympanic lesions, surgical exploration of the Labyrinth (Julien Bourget).

The type and the illustrations are unusually clear. The latter are well chosen. The book is more than a supplement to our literary otologic armamentarium. The facts referred to must become familiar not only to the otologist but to the general practitioner as well.

Consumption: Its Relation to Man and His Civilization; Its Prevention and Cure.—By John B. Huber, A. M., M. D., Visiting Physician to St. Joseph's Hospital for Consumptives, etc. 9½x 6½ inches; 535 pages, 131 illustrations. Cloth, $3.00. Philadelphia, J. B. Lippincott Co., 1906.

In this well made book, Dr. Huber has gathered together an immense number of most interesting and instructive facts concerning pulmonary tuberculosis. It is not a medical treatise, but rather a store house of information on the historical, medical, economic and sociologic aspects of the disease. It is written for the layman as much as for the physician and deserves a wide reading.

The scope of the work may be judged from a list of a few of the chapters—such as Sociological Considerations, The Cure, Sanatoria, Administrative Measures, etc. More technical matters are treated of in the Appendix, where there are many useful facts about disinfection, hydrotherapy, tents, sanatorium construction, etc.

The author has much literary ability and his very pleasing style makes fascinating and easy reading. We would highly recommend this volume to every physician who wishes to inform himself on the many and varied phases of this live topic.

The Practice of Gynecology.—In original contributions by American Authors. Edited by J. Wesley Bovee, M. D., Professor of Gynecology George Washington University, Washington, D. C. 836 pages. Illustrated with 382 engravings and 60 full-page plates. Cloth, $6.00. Lea Brothers & Co., Philadelphia and New York, 1906.

Bovee's Practice of Gynecology forms a volume of the "Practitioners' Library," and is a treatise on the diseases of the generative organs of women and on those of neighboring organs, the urinary system and rectum. The book has the preference over others on the same subject, in that it is written by seven members of the medical profession under the editorship of Bovee. In this way the single chapters are written in the most accurate way, under consideration of the latest and most modern knowledge. Excellent illustrations are found throughout the book, partly original and partly taken from other well known works.

Of the separate chapters, "Examination of Pelvic Contents," "Technique of Abdominal Operations," and the one on "Extrauterine Pregnancy," are written by X. O. Weider, Pittsburg.

The editor, Bovee, has written the chapters on "Developmental Anomalies of the Female Generative Organs," "Sterility," "Diseases of the Rectum and Anus," "Surgical Conditions of the Kidney," "Ureter," "Affections of the Bladder and Urethra."

J. Riddle Goffe, of New York, wrote the chapters on "Menstruation," "Displacements of the Uterus," "The Vaginal Method of Operating," "Abdominal Operations: Their After-treatment and Complications." The chapters on "Fecal Fistulae," "Urinary Fistulae," "Lacerations of the Penineum," "Diseases and Injuries of the Vulva and Vagina," were written by George H. Noble, of Atlanta, Ga.

"The Diseases of the Uterus," by G. Brown Miller, Washington, D. C. (in seven different chapters), "The Infectious Diseases of the Tubes and Ovaries," are treated by Thomas J. Watkins, of Chicago, while the other diseases of both organs are from the pen of Benjamin R. Schenck, of Detroit.

The book can be most highly recommended as each contributor has complied with the idea of the editor "in giving the results of scientific investigation in an impartial and interesting manner."

Eczema:. A Consideration of Its Course, Diagnosis and Treatment.—By Samuel Horton Brown, Assistant Dermatologist Philadelphia Hospital, etc. Cloth, 5x8 in., 104 pages. Price, $1.00. Philadelphia, P. Blakiston's Son & Co., 1906.

This little book covers an important subject in a comprehensive way and contains many practical points which the practitioner will find very useful. A particularly good chapter is that on the "Treatment in Various Regions.' In all 146 prescriptions, with points in their application, are given.

A Compend of Pharmacy.—By F. E. Stewart. Sixth edition; 5x7 in.; 187 pages; cloth, price $1.00. Philadelphia, P. Blakiston's Son & Co., 1906.

Blakiston's Quiz Compends, bound in brown cloth, are familiar to all. The present volume is the sixth edition of that on pharmacy which has been in use since 1886. It has been revised and now conforms to the last editon of the U. S. Pharmacopœia.

PROCEEDINGS OF THE FORTY-FIRST ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY, HELD AT JACKSON, MAY 23, 24 AND 25, 1906.

Minutes of the Meetings of the Council Held During the Annual Meeting.

The Council of the Michigan State Medical Society was called to order in the parlors of Elks' Temple, Jackson, on the evening of May 22, 1906, by Chairman Burr.

Present: Drs. Herdman, Bulson, Haughey, Burr, Willson, Dodge, Felch, President Inglis and Secretary Schenck of the State Society.

The minutes of the January meeting were read and approved.

Chair asked for the report of the Secretary in regard to the Order of Business which he had been instructed to prepare and submit to the Council.

Secretary submitted the following:

ORDER OF BUSINESS FOR THE COUNCIL.

For January Meetings:

Call to order.

1. Reading of minutes of the last meeting.
2. Report of Secretary of the Council.
3. Communications from Chairman and President.
4. Report of General Secretary-Editor.
5. Report of Treasurer.
6. Reports of Councilors in numerical order.
7. Reports of Committees—
   Financial.
   Publication.
   County Societies.
8. Miscellaneous Business: Hearing of appeals from Councilor's decision in questions of membership, discipline, etc.
9. Election of General Secretary-Editor.
10. Election of Treasurer.
11. Adjournment.

For Annual Meeting, First Session:

Call to order.

1. Reading of minutes of January or last meeting.
2. Secretary's report.
3. Reading and adoption of Council's report to the House of Delegates.
4. Hearing of appeals from Councilor's decision in questions of membership, discipline, etc.
5. Recess.

Second Session:

Call to order.

1. Reading of minutes of last session.
2. Communications from General Body, House of Delegates, Members, Committees, etc.
3. Hearing of appeals from Councilor's decision in questions of membership, discipline, etc.
4. General business.
5. Recess.

Third Session:

Call to order.

1. Reading of minutes of previous session.
2. Introduction of new members and President.
3. Reception of and action upon communications from the General Body, House of Delegates, Individual Members, Committees, etc.
4. Hearing of appeals from Councilor's decision in questions of membership, discipline, etc.
5. Appointment of Standing Committees—
   Financial.
   Publication.
   County Societies.
6. Election of Officers (Chairman, Secretary)
7. Fixing amount of Secretary's compensation.
8. Adjournment.

Dr. Felch moved that the report be accepted and adopted. Supported by Dr. Herdman and carried.

Secretary had no further report to make.

The report of the Council, through its Chairman, to the House of Delegates, in which was in-

corporated a recommendation that the Council appropriate one hundred dollars to procure a suitable testimonial for Dr. A. P. Biddle upon his retirement from the Secretaryship, was read, discussed and adopted section by section.

NAMES PROPOSED FOR RESIDENT HONORARY MEMBERS.

By Dr. Haughey: Dr. Wm. Parmenter of Vermontville. Supported and carried.

By Dr. Herdman: Dr. Thomas Flintermann, of Detroit. Supported and carried.

Chair declared nominations closed.

NAMES PROPOSED FOR NON-RESIDENT HONORARY MEMBERS.

By Dr. Willson: Dr. J. N. McCormack, of Bowling Green, Ky. Supported and carried.

Chair declared nominations closed.

The following resolution was adopted by the Council:

"The Council recommends that the House of Delegates take action, by resolution or otherwise, in the interest of Insurance Policy Holders, approving of the position of those medical men who have stood out against the false economy of Life Insurance Companies that, in a spasm of virtue, have reduced fees for medical examinations. In conscientious and careful action on the part of examining physicians lies the only security to companies and their policy holders, and the best attainable medical examination is none too good. It would seem fitting that a ringing resolution resisting the lowering of fees and demanding additional compensation for insurance examinations be adopted by this society."

The Council authorized the Chairman to incorporate the following in his report to the House of Delegates:

"The Council recommends the appointment of a committee to revise the Constitution and By-Laws.'

Dr. Schenck read a letter received from Dr. McCormack, in which he stated that he could spend three or four weeks in Michigan beginning October 8, 1906, if his itinerary could be arranged. He would like to devote a day to each place, having an afternoon and an evening meeting.

Chairman Burr called the Council's attention to an invitation to attend the meeting of the Association of State Medical Journals to be held in Boston, June 4, at 6 p. m.

Council adjourned to meet at two o'clock, May 23, at the same place.

The Second Session of the Council of the Michigan State Medical Society was called to order at Elks' Temple, May 23, 1906, by Chairman Burr.

Present: Drs. Herdman, Bulson, Haughey, Rockwell, Spencer, Burr, Willson, Small, McMullen, Dodge, Felch, President Inglis and Secretary Schenck of the State Society.

The minutes of the previous meeting were read, corrected and approved.

The report of the committee appointed to draft resolutions to Dr. Biddle on his retirement from the Secretaryship was read by Dr. Haughey, who also read a letter from Dr. Biddle acknowledging the receipt of the resolutions and desiring that his appreciation be expressed to the Council.

By Dr. Willson: That the resolutions, togetner with the letter received from Dr. Biddle, be spread upon the minutes of this meeting. Supported by Dr. Rockwell and carried.

Dr. Rockwell presented the name of Dr. M. L. Towsley of Kalamazoo for Honorary Membership.

Laid on the table until the session of May 23rd.

The third session of the Council was called to order at 2:00 p. m., May 24, 1906, by Chairman Burr.

Present: Drs. Herdman, Bulson, Haughey, Rockwell, Spencer, Burr, Small, McMullen, Baker, Dodge, Felch, also President Inglis and Secretary Schenck of the State Society.

The minutes of the last meeting were read and approved.

Dr. W. J. Herdman, Chairman of a Special Committee, appointed in January, made the following report:

Your Committee appointed at the January, 1906, meeting of the Council to formulate a statement defining the position which we, as a medical organization, maintain with reference to all so-called pathies or sectarian forms of practice of medicine or surgery would respectfully submit the following report:

The American Medical Association as now organized, with its component state and county

medical societies, stands on a platform of broad and comprehensive knowledge, which aims to include all that has been discovered in medical science and art that has stood the test of experience, no matter from what source it originated.

In its future progress and search after larger measures of truth our aim is to be guided by this same tolerant and liberal spirit. We do not, therefore, recognize any pathies or exclusive and sectarian modes of practice, believing such, as far as they contain truth, to come within the boundaries of that greater domain of truth which our organization has entered; the truth which they possess being but a part of that greater volume of which medical science is composed.

We welcome to membership in our organization all who, having the requisite preliminary qualifications for the practice of the medical profession, are willing to adopt this comprehensive conception of medical science and art and seek to promote it in their study and practice.

Having thus defined our attitude toward all exclusive or sectarian forms of practice it can be readily seen that we cannot as an organization affiliate with or enter into fraternal relations with any body of physicians who have voluntarily placed limitations to their attainments and who by so doing fail to recognize much of that which medical science and art have revealed.

W. J. HERDMAN,
W. T. DODGE,
A. E. BULSON.

By Dr. Rockwell: That the report of the committee be accepted and adopted. Supported and carried.

Chair called attention to the communication from the General Session requesting the Council to appropriate five hundred dollars for the relief of California physicians.

By Dr. Haughey: That this Council appropriate five hundred dollars for the California physicians' relief fund.

Supported by Dr. McMullen and carried.

By Dr. Herdman: That the money be remitted through the machinery of the A. M. A. for the benefit of the physicians, sufferers from earthquake and fire, of California.

Supported by Dr. Haughey and carried.

In connection with Dr. McCormack's proposed visit to Michigan, Dr. Schenck read several circular letters which had been used in Kentucky and asked for suggestions as to the cities to be visited.

By Dr. Dodge: That Dr. J. B. Murphy be made a non-resident honorary member. Supported by Dr. Herdman and carried.

By Dr. Dodge: That the Secretary be instructed to cast the ballot of the Council for Dr. Burr for Chairman for the ensuing year. Supported and carried.

Secretary cast the unanimous ballot, 11 votes.

Dr. Burr declared elected.

By Dr. Herdman: That the Chair cast the ballot of the Council for Dr. Haughey for Secretary for the ensuing year. Supported and carried. Chair cast the unanimous ballot, 11 votes.

Dr. Haughey declared elected.

Chair requested Secretary to read that portion of the minutes of January meeting referring to compensation for Secretary and assistant, which is as follows:

By Dr. Willson: That the sum of $50.00 be voted to the Secretary of the Council, this sum to pay the expenses of postage, sfationery, etc., of his office as Secretary. Also that an honorarium of $50.00 be voted to Miss Anna Haughey in recognition of her services as stenographer to the Council for the year June, 1905, to May, 1906.

By Dr. Dodge: That the same action be taken for the ensuing year. Supported and carried.

Council adjourned to meet in January at call of Secretary.

(Signed) W. H. HAUGHEY,
Secretary of Council.

Minutes of the Proceedings of the House of Delegates.

President—David Inglis, Detroit.
Secretary—B. R. Schenck, Detroit.

First Day, May 23, 1906, 8:30 A. M.

1. Call to order by President Inglis.

2. Majority of the members of the House being present, meeting declared open for the transaction of business.

3. Minutes of last annual meeting read and approved.

4. Report of the Council, C. B. Burr, Chairman. (See page 458.)

By C. S. Oakman, Wayne: That the report of the Council be referred to a Business Committee, excepting that part relating to the revision of the Constiution and By-Laws, which shall be referred to a Special Committee, appoint-

ed by the Chair, who shall begin their work immediately and be ready to report at the session of May 24th, if possible, thus finishing up this work during the present meeting in Jackson. Supported and carried.

5. Report of Committee on Legislation and Public Policy, W. H. Sawyer, Hillsdale, Chairman. (See page 461.)

Report accepted and placed on file.

6. Report of the National Legislative Council, A. M. A., Flemming Carrow, Michigan member. (See page 461.)

Report accepted and placed on file.

7. Miscellaneous Business.

a. The following were proposed from the floor to serve on the Committee on Nominations, to nominate First, Second, Third and Fourth Vice Presidents; two Representatives in the House of Delegates, A. M. A., for two years; and to fix place of meeting for 1907:

L. S. Griswold, Mecosta; S. S. Lee, Houghton; W. S. Anderson, Wayne; J. H. Buckham, Genesee; A. E. Thompson, St. Clair.

By C. T. Southworth, Monroe: That the gentlemen proposed be declared elected. Supported and carried.

b. Chair appointed the following as the Business Committee, to which has been referred the recommendations contained in the various reports: W. L. Dickinson, Saginaw; C. H. Lewis, Jackson; Geo. Bjőrkman, Delta; T. M. Yeomans, Shiawassee; W. L. Griffen, Muskegon.

c. Chair appointed the following to serve on the Special Committee to revise the Constitution and By-Laws: Theo. A. Felch; W. C. Huntington, Livingston; D. Emmet Welch, Kent; B. R. Schenck, Secretary.

d. Jackson County presented the following resolution, through its delegate, C. H. Lewis:

Whereas, The deplorable practice of abortion is so prevalent as to cause wrecks of very many American women, and

Whereas, Many mid-wives and unprincipled members of an honorable profession are induced to assist in the accomplishment of this nefarious practice, and conviction under the laws of this state is almost impossible, unless the subject dies; therefore be it

Resolved, That it is the sense of the Jackson County Medical Society that the statutes of the state should be made more stringent, and they recommend that this matter be referred to the Committee on Legislation and Public Policy of the Michigan State Medical Society for a furtherance of this object.

(Signed) E. C. TAYLOR,
N. H. WILLIAMS,
P. J. EDWARDS,
Committee.

On motion, the resolutions were referred to the Committee on Legislation and Public Policy.

James F. Breakey, Washtenaw, stated that at a recent meeting of the Washtenaw County Medical Society a resolution was presented and adopted pledging the members of the Washtenaw County Medical Society to a minimum fee of five dollars for life insurance examinations, and requesting that the delegate to the Michigan State Medical Society bring the matter to the attention of the State Medical Society and request such cooperation as may be possible.

Referred to the Business Committee.

W. L. Griffen, Muskegon, also introduced a resolution resisting the lowering of fees for Life Insurance Examinations.

Referred to the Business Committee.

By W. H. Hutchings, Wayne: That a committee of three be appointed by the Chair to procure a suitable testimonial for A. P. Biddle as a token of the regard and esteem in which he is held by the profession. Supported and carried.

House of Delegates adjourned to meet May 24th at 9:00 a. m.

SECOND DAY, THURSDAY, MAY 24, 9 A. M.

1. Call to order by President Inglis.

2. Minutes of previous session read and approved.

3. Miscellaneous business.

a. T. A. Felch, Chairman of the Committee appointed to revise the Constitution and By-Laws, reported as follows:

Your Committee recommends that Art. VIII, Sec. 2 of the Constitution, be so changed as to read: "The Council shall be elected for terms of six years each, these terms being so divided that four Councilors shall be chosen each alternate year."

(*Proposed amendments to the Constitution must lie over for one year and be officially sent to each component County Society at least four months before the session at which final action is taken.—Art. XIII.*)

b. The Committee also recommended the adoption of certain amendments to the By-Laws, which were read and laid on the table until the session of May 25th. (See 4 of minutes of May 25th.)

c. Report of Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State, Walter R. Parker, Detroit, Chairman. (See p. ...)

By W. S. Anderson, Wayne: That the report of the Committee be accepted and placed on file, and the Committee be continued. Supported and carried.

d. Report of the Committee on Patent Medicine Evil, C. B. Stockwell, Port Huron, Chairman. (See page 463.)

By G. B. Gesner, Calhoun: That the report be accepted and placed on file. Supported and carried.

By D. R. Clarke, Wayne: That it is the sense of this meeting of the House of Delegates that the editor of the State Medical Journal be requested to apply for permission to reprint, either in whole or in part, the series of articles appearing in the Journal of the A. M. A., entitled "The Physician and the Pharmacopoeia.'

Supported and carried.

Chair requested Dr. Clarke to make such abstracts for the Journal.

By W. E. Coates, Manistee: That the Secretary of the State Society put himself into communication with the secretaries of the various county societies recommending that each society appoint a committee of one upon Legislation and Special Work, where one does not already exist. Supported and carried.

(See July issue of Journal, p. 397.)

c. W. L. Dickinson, Saginaw, Chairman of the Business Committee, made the following report:

Your Business Committee respectfully submits the following report on the matters referred to it.

1st. "Resolved that the Michigan State Medical Society shall express by a rising vote of thanks its appreciation of the eminent services of Dr. Leartus Connor in the reorganization and upbuilding of the society.

Carried unanimously.

2nd. Resolved, that the recommendation of the Council that the Society shall testify in a substantial way to its estimation of the long-continued and arduous labors of the former secretary, Dr. A. P. Biddle, and the appropriation of an amount not to exceed $100 authorized by the Council for this purpose, be adopted.

Resolution adopted unanimously.

3rd. The nomination by the Council of Dr. William Parmenter, of Vermontville, and Dr. Johann Flintermann, of Detroit, as resident honorary members, and Dr. J. N. McCormack, of Bowling Green, Ky., as non-resident honorary member of the Society is endorsed, and their election advised.

Recommendation adopted.

5th. Your Committee highly approves of the report of the Council on the councilor district meetings held during the past year, and hopes for a continuance of such meetings with increasing success and profit for the year to come.

Recommendation adopted.

6th. Your Committee advises the adoption of the recommendation of the Council in the matter of a return to a two-day session of the Society and the changes in the Constitution and By-Laws necessary for the carrying out of this purpose; also that the first meeting of the Council be held in the afternoon and that of the House of Delegates in the evening of the day before the opening of the general sessions, and that the orations be omitted.

Recommendation adopted unanimously.

7th. A resolution in the matter of fees for life insurance examinations was reported by the committee and created some discussion.

By Dr. D. R. Clarke, Wayne: That this section of the Committee's report be referred back to the Committee with power to amend, with instructions to report at the General Session, May 25th.

Supported by G. B. Gesner, Calhoun, and carried.

W. E. Coates, Manistee, presented the following resolution:

"Whereas, the study and prevention of tuberculosis is one of the greatest problems to be faced and solved largely through the agency of the medical profession; therefore, be it

Resolved, That a permanent committee, to be known as the "Committee on the Study and Prevention of Tuberculosis," be established by the Michigan State Medical Society, said committee to consist of five members to be appointed by the President of the Society. The duties of said committee shall be to report annually, and from time to time through the columns of the State Medical Journal, on the year's progress along the lines of study, prevention, treatment, and cure of tuberculosis, together with economical

and sociological aspects of the disease; to place this information before the county medical societies; to co-operate in every way possible with National, State or Local societies and associations for the study and prevention of tuberculosis, and with all local, state and national Boards of Health, to secure the attainment of the same ends—the prevention, relief and cure of tuberculosis."

Resolution was supported by W. C. Huntington, Livingston, and carried.

House of Delegates adjourned to meet May 25th.

THIRD DAY, FRIDAY, MAY 25.

1. Call to order by President Inglis.

2. Minutes of previous session read and approved.

3. The Committee on Nominations, through S. S. Lee, Houghton, reported as follows:

For 1st Vice President, Dr. Wm. Fuller, Grand Rapids.

For 2nd Vice President, Dr. E. T. Abrams, Dollar Bay.

For 3rd Vice President, Dr. D. E. Robinson, Jackson.

For 4th Vice President, Dr. A. R. Stealy, Charlotte.

Delegates to House of Delegates, A. M. A., for two years: Dr. A. I. Lawbaugh, Calumet; Dr. Leartus Connor, Detroit.

Alternate (1906), Dr. O. H. Clark, Kalamazoo.

Place of meeting 1907, Saginaw.

Moved that the Secretary cast the ballot of the House in favor of the various candidates recommended for the offices named.

Supported and carried. Secretary cast the ballot and the above named gentlemen were declared elected.

By W. E. Coates, Manistee: That the next Annual Meeting of the State Medical Society be held in the city of Saginaw.

Supported by C. H. Lewis and carried.

4. Miscellaneous business.

a. Secretary read the following proposed amendments to the By-Laws, which refer to the omission of the Annual Orations:

Chap. III, Sec. 1, line 10, omit the words "and the Annual Orations."

Chap. III, Sec. 4, second line, omit the words "and Orations."

Chap. IV, Sec. 2, sixth and seventh lines, omit the words "and the Annual Orations."

Chap. V, Sec. 2, omit entire section.

By W. H. Hutchings, Wayne: That the amendments be adopted.

Supported and carried.

Chap. VI, Sec. 9, line 1, substitute for "12:00 o'clock, noon," the words "11:00 a. m."

By C. S. Oakman, Wayne: That the amendment be adopted.

Supported and carried.

Chap. VII, Sec. 4, at the end of first paragraph, amend to read: "He shall annually make a report to the Council at the January Meeting and the essentials of this report shall be incorporated in the report of the Chairman of the Council to the House of Delegates at the next session.'

By W. H. Hutchings, Wayne: That the amendment be adopted.

Supported and carried.

Chap. IX, Sec. 1, omit the words, "Committee on Nominations."

By C. S. Oakman, Wayne: That the amendment be adopted.

Supported and carried.

Chap. IX, Sec. 4, line 2, substitute for the word "appointed" the word "elected."

By W. H. Morley, Washtenaw: That the amendment be adopted.

Supported and carried.

b. Secretary presented a communication from the Council that Dr. J. B. Murphy, Chicago, had been nominated non-resident honorary member.

By W. H. Hutchings, Wayne: That Dr. J. B. Murphy be elected a non-resident honorary member of this Society.

Supported and carried.

5. The report of the Committee on Vital Statistics was omitted because of the absence of its Chairman, H. B. Baker, Lansing.

6. New and unfinished business.

W. H. Morley, Washtenaw, presented the following:

"Resolved, that the State Medical Society believes that the existence of tuberculosis among dairy cattle is a serious menace to the public health, and inasmuch as the state laws of Michigan are deficient in measures intended to protect the public from this danger;

Resolved, that this Society request its Committee on Legislation and Public Policy to peti-

tion the Legislature to so modify the laws of the state as to encourage the more general application of the tuberculin test to cattle by providing for a satisfactory compensation for cattle destroyed."

Resolution adopted.

W. L. Dickinson, Saginaw, Chairman of the Business Committee, made the following report:

Your Business Committee would recommend the adoption of the following resolution:

"Whereas, The Michigan State Medical Society deplores the lack of systematic teaching of ethics in the medical colleges of the United States, and

Whereas, this often results in errors in medical conduct on the part of graduates, especially of the younger men, therefore be it

Resolved, That the Michigan State Medical Society heartily recommends to the faculties of the various medical schools the systematic teaching of ethics to their students.

By C. S. Oakman, Wayne: That the resolution be referred to the Committee on Medical Education.

Supported and carried.

C. H. Lewis, Jackson, presented the following resolution:

"Resolved, That the President be requested to appoint a committee of three, whose duty it shall be to investigate the practice of fraternal order contract practice in its effects upon the interests of other practitioners and upon the maintenance of a just rate of fees for professional services; and report their findings to the Society at its next meeting."

Dr. A. L. Seeley, Tuscola, offered the following amendment to Dr. Lewis' resolution:

"That the committee, while making its investigation regarding the fraternal contract work, also take into consideration the contract work being done in the different townships throughout the state for the Poor Board. The Poor Commissioners in a great many counties go into each township and after canvassing the physicians let the contract to the lowest bidder for the poor work, and that often times is way below cost. A schedule could very probably be adopted for that kind of work with which we could get along very harmoniously.

Amendment supported and carried.

Moved that the resolution as amended be adopted.

Supported and carried.

House of Delegates adjourned to meet in Saginaw the day before the opening of the General Meeting.

(Signed) B. R. SCHENCK,
State Secretary.

Minutes of the Proceedings of the Society in General Session.

President, David Inglis, Detroit.

Secretary, B. R. Schenck, Detroit.

First Day, Wednesday, May 23, 10:30 A. M.

1. The Forty-first Annual Meeting was called to order at the Elks' Temple, Jackson, by President Inglis.

2. Prayer by the Rev. R. E. McDuff, Jackson.

3. Address of welcome, Hon. W. W. Todd, Mayor of Jackson.

4. Address of welcome in behalf of the profession, A. E. Bulson.

5. Report from the House of Delegates, B. R. Schenck, Secretary.

6. Address of the President, David Inglis, Detroit. Subject "Education." (See Journal, June, 1906, p. 309.)

By C. B. Burr, Genesee: That a vote of thanks be extended to Dr. Inglis for his excellent paper and that the recommendations be referred to a Special Committee of which C. B. Stockwell, of St. Clair, is Chairman, he to select two other members.

Supported and carried.

7. Miscellaneous business.

By Dr. Flemming Carrow, Wayne: I beg to place in nomination for President of the Michigan State Medical Society the name of a gentleman whom you all know. His father was the first President of the Michigan State Medical Association. He himself, following in the footsteps of his sire, has been President of his own County Medical Society; he has been active in everything which pertains to medical advancement in his region of the state; he is an honored citizen of his city; he is respected by everyone there and he is beloved by those who know him well. I have the honor, Mr. President, to place in nomination the name of Dr. C. B. Stockwell, of Port Huron.

By W. J. Herdman, Washtenaw: That the nominations for President be closed. Supported and carried.

Adjourned.

Second Day, Thursday, May 24, 10:30 A. M.

1. Called to order by President Inglis.

2. Unfinished business. The President appointed the following on the committee to procure a testimonial to Dr. iBddle: C. B. Burr, Genesee; Angus McLean, Wayne; C. T. Southworth, Monroe.

3. Report of the Committee on Venereal Prophylaxis, A. E. Carrier, Detroit, Chairman. (See p. 467.)

Report accepted and placed on file.

4. Oration on Surgery, by A. W. Crane, Kalamazoo. Subject, "Gastro-enteroptosis." Illustrated by X-Ray Plates in a Darkened Room.

5. Oration on Medicine, by B. H. McMullen, Cadillac. Subject, "Small Hospitals for Small Places."

6. New business.

By Wm. F Breakey, Washtenaw: That the Council be requested to appropriate the sum of five hundred dollars for the relief of the suffering physicians in California.

Supported and carried.

President read a letter received from Dr. John R. Bailey, of Mackinac Island, containing an invitation to the Society to meet at Fort Mackinac in 1907.

Referred to the Committee on Nominations.

C. B. Stockwell, Port Huron, Chairman of Committee appointed to consider the several resolutions embodied in the President's address, made the following report:

Your Committee respectfully recommends, in accordance with the suggestions of the President in his annual address, the following resolutions:

Resolved, That a Standing Committee on Medical Education be appointed by the President to cooperate with the Council on Medical Education of the American Medical Association.

Resolved, That we heartily recommend the County Societies to take steps toward the education of the public in regard to the prophylaxis of venereal diseases by means of lectures, to which the public shall be invited.

Resolved, That in order to attain the highest efficiency in medical education in this state, giving the greatest number of instructors to a given number of students, together with greatly increased clinical facilities, we view with favor, the proposed amalgamation of the Medical Department of the University of Michigan and the Detroit College of Medicine.

C. B. STOCKWELL,
A. J. ABBOTT,
E. T. ABRAMS,
Committee.

These resolutions were all adopted.

Adjourned.

THIRD DAY, FRIDAY, MAY 25, 10:30 A. M.

1. Called to order by President Inglis.

2. Miscellaneous business.

a. C. H. Lewis, Jackson, read the following resolutions recommended by the Business Committee of the House of Delegates, who had been instructed to report the matter to the General Session:

"*Whereas,* Many of the Life Insurance Companies have notified their medical examiners of a reduction of the examining fee from $5.00 to $3.00, and

Whereas, We, as physicians, realizing the responsibility incident to proper examination of the individual, believe such reduction to be unjust; therefore, be it

Resolved, That the House of Delegates, in session assembled, do hereby declare such reduction to be unjust, and respectfully request that no physician legally authorized to practice medicine in Michigan, accept such reduction of fee.

Resolved, That it is the sense of the House of Delegates that hereafter in such examination for life insurance, the minimum fee shall be $5.00.

Resolved, That the several component societies forming this State Society be requested to adopt these resolutions.

Resolved, That a copy of these resolutions be mailed to the several life insurance companies that have reduced the fee from $5.00 to $3.00."

Resolutions adopted unanimously.

b. A rising vote of thanks was extended to the Jackson County Medical Society, to the ladies of Jackson, to the city officials, to the street railway company, to the Jackson clubs, to the Elks and to all who had contributed to make the forty-first meeting so pleasant and successful.

3. Report from House of Delegates, B. R. Schenck, Secretary.

4. Oration on Obstetrics and Gynecology, E. T. Abrams, Dollar Bay. Subject, "American Gynecology."

A vote of thanks was extended to the orator.

5. The Committee on Nominations reported that C. B. Stockwell, of Port Huron, had been unanimously elected.

President appointed C. B. Burr and W. T. Dodge a committee to escort Dr. Stockwell to

the platform, where he was introduced to the Society and expressed his appreciation of the honor bestowed upon him. He also called attention to the coming visit of the National Organizer, Dr. McCormack, to our state, and urged the co-operation of the medical profession in making this visit a success.

By C. B. Burr, Genesee: That a vote of thanks be extended to our retiring President and new Secretary and other officers of the Society for their conscientious and excellent work in preparing for this meeting and the efficient and spirited way in which the exercises of the meeting have been carried out.

Motion supported and carried unanimously.

Meeting adjourned *sine die*.

(Signed) B. R. SCHENCK,
State Secretary.

Report of Council.

To the House of Delegates:

The Council submits the following report:

1. *Resignation of Dr. Leartus Connor, Councilor.* The Council reports with sincere regret the resignation of Dr. Connor. The vacancy created by his retirement from the Council was filled by the appointment of Dr. W. J. Herdman, of Ann Arbor, who assumed the duties of the position, January 1st, 1906.

Dr. Connor's services to the State Society during the work of reorganization have been of vast importance. To him, perhaps, more than to any other man in the Society has been due its rapid up-building and the establishment of its work on a secure foundation. His own optimism in reference to the work of organization and its importance to the profession, carried enthusiasm to others and was a potent factor in his distinguished success. As Chairman of the Council, he was efficient and faithful and that body has felt it a distinct loss to be deprived of his valuable suggestions and hopeful views.

2. *Retirement of Dr. A. P. Biddle, Secretary.* The Council has much satisfaction in placing upon record its tribute to the fidelity, efficiency, and untiring zeal of the late Secretary, Dr. Biddle. At considerable sacrifice because of the condition of his health he continued in the work until the reorganization of the Society was an accomplished fact. He saw its membership increase from 600 to 1,800. He established the Journal of the State Medical Society, a publication which immediately took an influential position among medical journals throughout the country. His tireless energy and unselfish thought for the welfare of the Society, conjoined with integrity of the highest order and a charming personality, have endeared him greatly to our members.

It would seem fitting that the Society testify in a substantial way its appreciation of his work and worth and the Council would recommend that a Committee from the House of Delegates be appointed to procure a suitable testimonial to be presented to Dr. Biddle at the next meeting. The Council has authorized an appropriation of an amount not to exceed $100 for this purpose.

3. *Secretaryship.* The Council elected to the office of Secretary of the Society, to succeed Dr. Biddle, Dr. B. R. Schenck, of Detroit, and since January the arduous work of the position, which involves that of editor of the Journal, has devolved upon him. The character of the Journal under his management speaks favorably of his editorial and business ability. He is a graduate of Williams College and of Johns Hopkins Medical School; was five years in service in Johns Hopkins Hospital; has been in practice in Michigan for three years and has filled important offices in connection with the Wayne County Medical Society.

4. *Finances.*

The following statement covers all transactions from January 1, 1904, to December 31, 1905:

Cash in Treasurer's hands Jan. 1, 1905		$ 617.40
RECEIPTS.		
Dues	$3,604.12	
Advertising (gross)	2,005.30	
Subscriptions to the Journal	7.17	
Blanks for County Societies	2.20	
Refund (R. R. and Adv. Com.)	6.95	
		5,625.74
Total		$6,243.14

EXPENDITURES.

Journal—	
Printing of Journal	$2,967.00
Putting in envelopes and mailing of Journal	77.70
2 ct. stamps (mailing to Detroit members)	84.76
Postoffice (second class rate)	61.25
Salary of Editor	300.00
Mailing list	70.80
Etchings	66.45
Advertising commission, 20%	400.94
Stamps, stationery, etc.	73.33

Printing Adv. Contracts and Rate Cards	5.50	
Copyright	6.00	
Advertising Commission (W. P. Long, New York Agent, 25%	34.75	
Office help	67.50	
Envelopes for Journal	18.10	
Telegrams to advertisers	1.00	
Exchange	6.31	
Express	3.00	
Binding Journals received	18.75	
Subscriptions	.60	
Incidentals	1.52	
		4,265.26

State Society—

Printing	$ 54.10	
Salary of Secretary	300.00	
State Society Meeting	84.89	
Stamps, stationery, etc.	73.30	
Secretary's expenses at State, District and County Soc.	83.12	
Office help	62.50	
Program of Annual Meeting, 1905	47.00	
Council Meeting, Jan., 1905	20.00	
Councilor's expenses	11.14	
Meeting Committee on Scientific Work	4.00	
Card Index Case	5.35	
Exchange	6.29	
Express	1.55	
Telegrams and telephones	5.15	
Refund Mich. Passenger Association	6.00	
Incidentals	8.01	
		772.42
Total Expenditures		$5,037.68
Cash in Treasurer's hands Dec. 31, 1905		1,205.46
Total		$6,243.14

5. *Membership.*

The membership of the Society on May 22nd is 2,001. Of these 1,509 have paid for 1906.

6. *The Journal.* The Journal has been regularly mailed to all of the members. On account of the printers' strike, there has been some difficulty in getting the issues out on the first of the month, but arrangements have now been made which will apparently obviate the trouble.

The Council believes that the Journal has been improved during the past year, both as to the scientific value of the papers published and as to the amount and interest of other matter. That the papers have been better is evidenced by the fact that there have been more abstracted in other journals than ever before. However, they may be much further improved if those in charge of the program of the state and county societies see to it that the standard of papers read is high.

The Journal should be the medical newspaper of the state but this can only be done by the co-operation of the County Secretaries. Some few Secretaries are diligent in this matter, sending in reports of meetings, personal items and medical news—others are never heard from, despite repeated requests from the editor. If certain sections of the state have apparently been represented better than others in the columns of the Journal, it has been simply because the material from those sections has been sent in. The whole state should be included, but this can only be accomplished by co-operation with the editor on the part of the County Secretaries who compose the staff of correspondents.

More papers are received than can be published without incurring unwarrantable expense. The Journal for 1904 contained 576 pages and for 1905, 628 pages. The issues thus far in 1906 have been larger than ever before, the first five issues comprising 308 pages, as compared with 240 for the first five months in 1905.

From the viewpoint of the advertiser, the value of the Journal has also apparently been enhanced.

In the May, 1905, issue there were 32 advertisements, bringing in $167.04. In the May, 1906, issue there were 36 advertisements bringing in $205.84. There have been lost during the year, 4 advertisements, aggregating 1¼ pages and representing $11.70. There have been gained 8 advertisements, aggregating 5⅞ pages, and representing $50.00. The net gain therefore has been 4 advertisements, amounting to 4⅞ pages and increasing the Journal's income $38.80 per month.

At the January meeting of the Council, the Secretary-Editor was instructed to advertise for estimates for printing the Journal. This was done and estimates were received from nine firms, both within and outside of Detroit. These figures were reviewed by the Publication Committee of the Council and a contract for the remainder of 1906 let to the present printer. If the Journal remains the same size as in 1905, the saving will be about 25%. Under the new contract more favorable prices (practically cost) have been secured for reprints of articles appearing in the Journal.

7. *Names proposed for Honorary Membership.* In accordance with the provisions of the Con-

stitution, Sections 5 and 6 of Article 4, which provide that not more than five resident honorary members and not more than two non-resident honorary members shall be nominated by the Council and may be elected by the House of Delegates at the annual meeting following such nomination, the Council recommends for this honorary position the following:

Dr. William Parmenter, Vermontville.
Dr. Johann Flintermann, Detroit.
Dr. T. N. McCormack, Bowling Green, Ky.

(For additional nominations see p. 455.)

8. *Councilor District Meetings.* Highly successful Councilor District Meetings have been held during the past year in the Twelfth District, Councilor Felch; Eleventh District, Councilor Dodge; in the Seventh District, Councilor Willson; in the Fifth District, Councilor Spencer; in the Third District, Councilor Haughey; in the First District, one during Dr. Connor's Councilorship, and another subsequently under Councilor Herdman.

These meetings with their combined scientific and social features have been found vastly interesting and profitable, and the policy of the House of Delegates in recommending and promoting them has been abundantly justified.

9. *County Societies.* Reports from the County Societies published in the Journal and communicated through the officers and Councilors indicate that most of these organizations are in a flourishing condition. In the interests of better work, the Council has permitted the consolidation of the County Societies of Kalamazoo, Van Buren and Allegan, in the Fourth District.

10. *Two Day Session.* It is believed by the Council that it would be good policy for the Society to return to the two days' session. It was impracticable to hold the attention of members thoroughly at the three days' meeting in Petoskey. What the experience of the present meeting may be, remains to be seen, but it is the opinion of every member of the Council who has expressed himself in the matter at all that the former plan is the better one and that it would be well in view of the increasing number of papers presented yearly to the Society that attention be devoted strictly to section work. To this end it is recommended that at the 1907 meeting there be a two days' session; that the first meeting of the Council be held in the afternoon and that of the House of Delegates in the evening of the day before the opening of the regular session; and that the orations be omitted.

To make this change would involve certain amendments to the By-Laws. In any event, the Council recommends that a committee be appointed to revise the Constitution and By-Laws.

11. *Medical Ethics.* At the January meeting of the Council the following resolution was unanimously adopted:

"We recommend that the Chairman of this Council incorporate in the report to the House of Delegates a request that the Michigan State Medical Society consider the advisability of recommending that medical colleges add to their curriculum a chair, or at least a branch, of Professional Ethics; that this subject should be taught in such a manner as to inspire the pupil with an understanding that his honor is involved in maintaining the ethics of the profession, in the same manner as individual honor has always been involved in questions of right and justice."

Apropos of this resolution an editorial in the Journal of the American Medical Association of February 24th, from whih the following forceful extract is reproduced, is of interest:

"One of the ways in which most, if not all, of our medical schools have failed to do their duty has been in graduating students into professional life without having given them the slightest idea of the economics of medicine. No word of those principles of ethics which should govern the conduct of medical men has been taught them. Medical students have had no instruction on what should be their relations to their fellow-physicians and to the profession in general or to the people whom they are to serve. Thus, ignorant of what they should know, they step into professional life and at once begin to make blunders. Who of us can truthfully say that, during the earlier years of his professional life, he did not do many things which were not in accord with that spirit of honor which should have guided him, and this so solely because he knew no better? Not only have the colleges failed to teach the student what should be his future attitude toward his professional brethren, what he should do and what he should leave undone, but they have also failed to instill into the student's mind that spirit of "Unity, Peace and Concord" which he most needs."

12. *Life Insurance Examination.* The Council recommends to the House of Delegates, action by resolution or otherwise, in the interest of insurance policy holders, approving of the position of those medical men who have stood out against the false economy of life insurance com-

panies, that in a spasm of virtue have reduced fees for medical examinations. In conscientious and careful action on the part of the examining physician lies the only security to companies and their clients, and the best obtainable examination is none too good. It would seem fitting that a ringing resolution resisting lowering of fees and demanding adequate compensation for insurance examination be adopted by this Society.

13. *The Future.* Organization has progressed well in the Michigan State Society, but in the vigorous language of Councilor Herdman, "it must be a means and not an end or disintegration will soon set in. There must be shown that there is plenty of work and valuable work to do, such work as a single body of this sort alone can do effectively, sanitary, hygienic, prophylactic, legislative—looking to the improvement of human conditions.' In this connection it is of interest to point to the remarkable gathering held in Detroit last winter to consider the question of the restriction of the spread of venereal diseases. This Society is to be congratulated upon being a pioneer in this movement and it is a source of much satisfaction that the inspiration back of this meeting came from a valuable scientific paper presented by a member of this body to one of its sections. Similar work in other lines may be done in future and it behooves the State Society in the interests of advancement to assume new and wider functions. To stand still is nerveless and uninfluential, so an organization of this character, unless it can be made a practical factor in the solution of the problem presented by the advance of civilization, will never attain a high measure of usefulness.

All of which is respectfully submitted.

Signed: C. B. BURR,
Chairman.

Report of Committee on Legislation and Public Policy.

Your Committee on Legislation and Public Policy has nothing to recommend to you at this time except that the profession be alive to resist and defeat any effort to modify existing laws governing the practice of medicine in Michigan. The statutes under which the State Board of Registration in Medicine is today acting are satisfactory and should not be changed. Any move to do this might come from special interests which should not be recognized.

It is hoped and believed that in the future this Committee will have the same loyal and united support that it has had in the past.

(Signed) W. H. SAWYER,
Chairman.

Report of the National Legislative Committee.

The National Legislative Committee is the direct representative of the American Medical Association. This Council has a member in each state of the United States, and he appoints someone his auxiliary. It is the duty of the Council with its auxiliary members to keep close watch of such legislation as affects medical men and medical matters; that which appears before our national legislature and also that which comes before our local state legislature. You will thus see that the Council has a very important duty.

With Dr. Reed, of Cincinnati, at its head, it has succeeded during the past year in securing such legislation as we thought would redound to our best interests.

It is a pity that as soon as a bill which appears to meet and does really meet the requirements of the individuals is prepared and presented to the Senate or House of Representatives of the United States there are a number of medical men throughout the country who immediately flock to the National Council with a view of being appointed on some committee in connection with the bill, so that if one House passes a bill and it is sent to the other House immediately amendments are made to the original bill, and it is our experience that as soon as amendments begin to be made the value of the original bill is at once destroyed.

The bill which was presented and claimed our attention first and foremost was the pure food and drug bill. The present status of this bill is as follows: It passed the Senate and was sent to the House; immediately our medical friends throughout the country flocked to Washington and began to tack amendments to this bill which was really a very excellent bill; it was put into the hands of a committee from the House of Representatives and there it remains with but very little of the original bill left, but with very lengthy amendments destroying in effect the force of the original bills. We will probably not get a pure food and drug bill passed this season.

In our army we have never had enough surgeons nor has their rank been sufficiently high; their suggestions have been overruled, in many instances causing unhealthful conditions to prevail. The Council has been endeavoring to learn

something from the way in which medical men in the Japanese army govern affairs and have patterned after them somewhat in framing a bill which has been presented to Congress, but which still hangs fire.

The Council has been and is still carrying on a crusade against nostrums.

The Council has endeavored to have a Department of Health established whose head shall be a member of the Cabinet. This seems to be impossible of accomplishment, although a bill providing for a Bureau of Health under the direction of the Secretary of War or of Agriculture may be put through.

All of which is respectfully submitted.

(Signed) FLEMMING CARROW.

Report of Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State.

The committee appointed to encourage the systematic examination of the eyes and ears of school children throughout the state has the honor to make the following report. The high schools in Detroit, Bay City and Ann Arbor are being systematically examined and we are assured in the fall that the work will be taken up in Grand Rapids, Port Huron and Pontiac.

While the work has been slow, opposition coming from parents, teachers and, I regret to say, the medical profession, the tide of opposition is rapidly turning and another year is almost certain to see the authorities of all the larger schools in the state inaugurating the work. It is an innovation along educational lines and is, therefore, necessarily slow.

The scheme of Dr. Allpost embodied in our lst report has been adhered to and found on the whole satisfactory.

Cards are furnished by the use of which the vision of the patient can be obtained, and the teacher is asked to determine the following facts:

FACTS TO BE ASCERTAINED.

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Does the pupil fail to read a majority of the letters in the number XX (20) line of the Snellen's Test Types, with either eye?
3. Do the eyes and head habitually grow weary and painful after study?.
4. Does the pupil appear to be "cross-eyed"?
5. Does the pupil complain of ear ache in either ear?
6. Does matter (pus) or a foul odor proceed from either ear?
7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room?
   Each ear should be tested by having the pupil hold his hand over first one ear, and then the other. The pupil should close his eyes during the test.
8. Is the pupil frequently subject to "colds in the head" and discharges from the nose and throat?
9. Is the pupil a habitual "mouth breather?"

If an affirmative answer is found to any of these questions, the pupil should be given a printed card to be handed to the parent.

It will thus be seen there is nothing required in the examination that can not be obtained by teacher or parent.

For the information of the Society a review of the progress of the work will be given, together with the results of the work done in one of the schools in Detroit.

The original resolution adopted at the New Orleans meeting of the American Medical Association read as follows:

Whereas, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures, therefore, be it

Resolved, That it is the sense of the American Medical Association that measures be taken by boards of health, boards of education, and school authorities, and, where possible, legislation be secured, looking to the examination of the eyes and ears of all school children, that disease in its incipiency may be discovered and corrected.

Since then these resolutions have been adopted by the State Medical Societies of twenty-one states, and by the Boards of Education of nine states, Michigan being included in each list.

The State Legislature of Connecticut and Vermont have incorporated this movement in a public law and the Governor of the State of Massachusetts in his message to the last legislature, strongly recommended that the annual systematic examination of public school children's eyes and ears be ordered by the law-makers of the state.

The Vermont law seems to be the better of the two, not only because it specifically states that the examination shall be made in September, but

because it includes ear defects. The Connecticut law requires only the eyes to be examined.

The Vermont law reads as follows:

The State Board of Health and the Superintendents of Education shall prepare or cause to be prepared suitable test cards, blanks, record books, and other needful appliances to be used in testing the sight and hearing of pupils in public schools, and necessary instructions for their use; and the Superintendent of Education shall furnish the same free of expense to every school in the state. The Superintendent, principal or teacher in every school during the month of September in each year shall test the sight and hearing of all pupils under his charge, and keep a record of such examinations according to the instructions furnished, and shall notify in writing the parent or guardian of every pupil who shall be found to have any defect of vision or hearing, or diseases of eyes or ears, with a brief statement of such defect or disease, and shall make a written report of all such examinations to the Superintendent of Education as he may require.

Section 2. The State Auditor is hereby directed to draw his order on the State Treasurer for such sums and at such times as the Superintendent of Education, with the approval of the State Board of Health, may require to carry out the provisions of this act. The total expense under this act shall not exceed six hundred (600.00) dollars in any biennial term ending June 30.

The advisability of recommending the adoption of a resolution by the Society urging the legislature to pass a law similar to the one in Vermont seems to your committee to be inadvisable at this time because of the inability to enforce such a law. Not until teachers more fully appreciate the important relation between the physical and the mental can good results be obtained. The educational crusade must come first.

The results to be expected from the work may be illustrated by stating that in one of the high schools in Detroit where the work was carefully done, out of 675 scholars examined, 409, or 58.8 per cent, were found to have some eye or ear defect or subject to headache. This, too, in a community where every facility is offered for all classes to obtain treatment. The percentage in localities where such opportunities are not afforded may go as high as 75 or 80 per cent.

Respectfully submitted,

WALTER R. PARKER,
CHAS. H. BAKER,
JOHN R. ROGERS,
Committee.

Report of the Committee on "The Patent Medicine Evil."

The main factors responsible for the existence of the patent medicine evil to-day are three: the physician, the press—lay, religious, and medical—and the law-makers.

Until recently an inactivity characterized the physician in combating the growth of the patent medicine fraud. The ancient history of this evil has not revealed the physician as clad in armor, or as wearing a halo. Courage was lacking. The force that always lies in a thing inherently right was underestimated and distrusted.

An evil characterized by greed, and leaving in its wake those wrecked in body and mind, even those wantonly deprived of life, has grown and pressed upon us each year.

Why, until recently, have we remained passive? Why, pushed back, have we protested but not resisted? The answer is not difficult.

With little organization, we have been confronted by an organized force. We, a band of scouts, have been trying to hold back an army. There has been too much individualism, too little massed strength. There has been more segregation than concentration. There has been that lack of unity that comes with a lack of organization, not such an organization as is animated by commercialism, but one animated by that spirit of fraternalism and that love for humanity to which Isaiah gave utterance three thousand years ago: "The spirit of the Lord is upon me because . . . he hath sent me to heal the broken-hearted, to preach deliverance to the captives, and recovery of sight to the blind, to set at liberty them that are bruised." Possessed with this spirit, the harmony and union which have already begun should become universal.

A second cause of inaction is the failure to enlighten and enlist the people. For years, left in their ignorance and innocence, they have been duped. Their instruction (?) in bodily ailments and infirmities has been left largely to misleading and falsifying advertisements which have flooded the press, and to booklets placed in confiding hands, giving that information which insures to the reader the possession of a category of diseases, of which each patent medicine advertised is a cure-all.

We, unorganized in our own defense and so in theirs, have been indolent and have not taught them better things. An inheritance of mystery and secrecy, with which we are still inclined to impress the sick and their friends, has come down

to us from times remote. But why? The Delphian oracles are certainly not a part of our modern equipment.

Better that the public have some knowledge of things medical than none at all! Better that that knowledge be pure than tainted! A little learning may be a dangerous thing, but reasonable enlightenment and instruction of the laity will diminish blind confidence in quackery. Physiology and hygiene revealed to an intelligent people have raised the art of living to a higher plane.

More instruction, properly directed, in a public as well as in a private way, will draw to us that confidence which has been misdirected. It will make the people our allies and form a public opinion giving impetus to our work.

Medical organization with such public opinion can in turn secure efficient legislation. The sacredness of human life demands better safeguards. More legislation is directed to the weevil threatening the cotton, to the gypsy moth threatening the trees, to the foot rot and glanders infesting animals, than against quacks whose ignorance cuts short human life, and nostrum vendors who play with human existence with the recklessness of the dice throw—a game of greed and graft.

Conditions so unjust cannot remain unchanged. The state must demand a higher order of medical intelligence and more efficient protection.

An awakening that comes with better organization and unity among the medical profession, a better intelligence among the laity regarding things medical, and an enlightened conscience on the part of the state, are important factors, but by no means small. These are but parts of the machine. The dynamics rest in those agents already mentioned: the physician, the press, and the law-maker.

Inherent defects are in each. The physician himself must take a higher stand. To be commanding he must be well equipped, not with an equipment which is incomplete, for which the schools are largely responsible; not with one which is furnished by so many schools in which, as one writer says, "Medical therapeutics is overshadowed to an undue degree by pathology and diagnosis."

That physician is weak who is brilliant in surgery yet knows little of materia medica, pharmacy and chemistry. These fundamentals are slighted because they are not dazzling.

Another writer dealing with the nostrum evil recently said: "Insufficient instruction in materia medica, pharmacology, pharmacy and chemistry offered by schools of medicine is the direct cause of present conditions." Certainly incompetency begets servility, and places many a physician at the chariot wheels of the nostrum makers.

Yet, to the competent physician, the reputable pharmacist holds a place of importance. He is needed and gives valuable assistance. The day of nauseous and disagreeable potions should be past. There is a demand for elegant and palatable preparations; the pharmacist fills it.

The manufacturer adds to our medicines many that are of value, but thousands that are unnecessary. Said a prominent commercial traveler for a well-known drug house: "Medicines are made to sell." When and how to use the few that are of inherent worth and are made for use is a knowledge invaluable. Running up and down the gamut of a polypharmacal tablet triturate case may be interesting to yourself, but it is not beneficial or kind to the patient for whom you prescribe. Subservience to anti-disease named remedies and hit-everything-at-forty-rods proprietary preparations does away with professional dignity and manliness and leads to the tent of the nostrum vendor. We are not blind to the fact that the majority of proprietaries are nostrums.

As to the press! What is the attitude of the lay, religious, and the medical press to-day? A quarter of a century ago it was universally subsidized by patent medicine manufacturers and quacks. It was not looked for that the lay press should take a high moral stand, but it was paradoxical that the religious press should disgrace itself by a Jekyl and Hyde existence—pointing to the loftiest ideals of a higher life in one column, while aiding the patent medicine dealers and unscrupulous charlatans to swindle the innocent public in another.

The medical profession, however, can throw but few stones. Our house is of glass. Many of the advertisements carried by medical journals far and wide were and are a disgrace. We have known it, we have acknowledged it, yet we have allowed it and are allowing it still.

The religious press can be pardoned for some of its former shortcomings because of thoughtlessness and ignorance. The Apostle Paul once said in excuse for certain Jewish shortcomings: "The times of their ignorance God winked at," but no ignorance is ours at which either God or man can wink. We have stood before the public stultified.

In the past the entire press conscience was limber and elastic The entire press—lay, religious, and medical—could be bought for a price. To-day a transformation is taking place. The

highest representatives of that branch of the press from which we expected the least—the lay press—are in the lead. Great honor is due them. The five greatest magazine publications in this or any other country, whose circulation is the most extensive known to the world, not only admit no advertisements to their pages from charlatans and patent medicine houses, but are doing everything in their power to put them out of business. Many lesser lay publications have "seen the light" and are lending their influence. We find that many are quietly refusing pseudo-medical advertisements that would have been received a few years ago without question.

The revenue from the patent medicine man means much to the country paper with a small circulation, whose editor must be alive to financial necessities. The wisdom of the remark of the medical student with a light purse, "It is fifty dollars damages to a man to be poor," is keenly appreciated. The more prosperous city editor and proprietor, with a larger revenue, can take up and consider the morals of the question with more equanimity.

As to religious papers and journals, a few which stand first in moulding public opinion occupy an unassailable position. Further, the space occupied by fraudulent medical advertisements in all religious publications has been reduced four-fifths in the past five years. While the medical advertisements of all sorts are far less, the great majority are stated modestly; others are rank and suggestive, though veiled.

Strange to say, in looking over many religious papers, an advertisement for the cure of hæmorrhoids seems to occupy more prominent places and more space than any other. This naturally would lead us to believe that there must be a remarkable affinity between piety and piles.

The only church papers found that carried no medical advertisements of any description were those of the German Evangelical denominations. In looking over eight prominent denominational papers published by each of four great religious bodies, your committee found on an average seven medical advertisements of all kinds in the papers of two denominations, five in another, and four in another. The boast has been made, we are told, by the management of one of these papers (a Michigan paper) that it pays very large dividends, so that a surplus is turned over each year to a fund set aside for the support of superannuated ministers. It is not to be wondered at, for we found no other paper carrying so large a number of quack advertisements, some of them particularly bad. The money may not be tainted, but it has an off-odor.

The question now is, how best to reach the medical, religious, and lay press.

The medical press naturally would carry medical advertisements. A concensus of opinion on the part of physicians does not demand their total exclusion. It should, however, demand that only honest claims for honest and worthy preparations, made by honest and reliable houses, and with the ingredients honestly stated, be admitted to any medical publication asking our support. Otherwise, such support, either by way of subscription or contributed articles, should be withdrawn. Our national and state society journals can be made to conform to this standard, and should receive our strongest support.

As to the religious press, it never had a call to admit any advertisements bearing even remotely on medical subjects. Needless to say, this was never an object in its establishment. In the years past when religious bodies fought over theories and dealt with dogmas rather than with applied Christianity and righteous living, this pseudo-medical fraud crept in and made the religious press its host. Money lavishly given hindered its being driven out. To-day the temple of the religious press, as already indicated, is being cleansed.

A conscientious religious man, when led to see an evil, is the most strenuous fighter known. The church is aroused and religious associations all over the land are making the patent medicine fight their own.

A case or two in point: An editor of a religious publication in Boston, armed with a letter written by a member of the Michigan State Medical Society, and showing the inconsistency of carrying any medical advertisements, went before his managing board with the result that all such advertisements were thrown out. The Congregational Association of Michigan four years ago withdrew its support from a state paper, published in its interests, largely because the editor and manager insisted upon carrying objectionable medical advertisements. This action killed the publication. The state journal of that association now carries no advertisement of a medical nature. Not only this, but, through the suggestion of a physician to a member of the business committee, a resolution protesting "against immoral and fraudulent advertising in religious papers," and urging the publishers of all their denominational periodicals to "cease the endorsement of quack liquor and drug laden medicines,

. . . with which unscrupulous men seek to defraud the innocent public," was passed by the association unanimously and with enthusiasm in 1904.

Clergymen of other religious bodies have been interviewed by your committee, and will see that similar resolutions are introduced at the annual meetings to be held in the near future.

On April 8th of this year the Miami Presbytery of Ohio drew up a strong memorial, asking the General Assembly of the Cumberland Presbyterian Church to "direct its Board of Publication, through its agents, to refuse all advertisements of a medical character unless approved by a special board composed of three physicians." These resolutions voice the sentiment which is growing all over the country. Individual support and aid on the part of medical men connected with religious bodies will be all that is necessary to cleanse every religious periodical in the near future.

Regarding the lay press: the fight which the greater journals and newspapers are making for pure drugs and against nostrums should have our support and aid in every way possible. It is a forerunner of better things that three of the Chicago dailies are championing the "Pure Food Bill"—calling for a descriptive labeling of mixtures which are uncertain and pernicious, and are made to deceive the trustful public.

To our minds, some progress can be made by investigating the bald and untruthful claims made in the local press of each county by medical adventurers. The majority of the lay press stands ready to champion the cause of the people where evidence of fraud can be shown and swindlers are unearthed. That some effort may be made in this line leads the committee to suggest that a recommendation be made to each society to appoint a committee of one on special and legislative work, who shall, in connection with legislative work to be hereinafter mentioned, make a study of the patent medicine field in his vicinity and from time to time make a report to his society with a view to diminishing the fraud.

Incidentally, such a committee would be in a position to protest efficiently against those druggists becoming practical partners with nostrum makers who have permitted their names to be appended to nostrum advertisements as if endorsing their preposterous claims.

Finally, what of the law-makers? President Roosevelt, in a message to Congress in December last, recommended that a law be enacted to regulate interstate commerce in misbranded or adulterated foods, drinks and drugs. Congress is doing what it can toward passing a satisfactory "Pure Food Bill," the Postoffice Department toward restricting the use of the mails, and the War Department in prohibiting the shipping of patent medicines laden with alcohol to the Indians. Commissioner of Internal Revenue Yerkes is to be commended in requiring an internal revenue tax to be placed on patent medicines containing a certain per cent of alcohol. Most of the legislation, however, restricting and regulating the patent medicine trade must be done by states. Two hundred and fifty million dollars stands opposed. Against this opposition brass bands and glowing resolutions will not win. Organized and persistent effort alone will win.

Some states have made a good start in the matter of legislation. North Dakota passed a law requiring preparations containing 5 per cent of alcohol or opium and its derivatives, chloral, cocaine and other deleterious drugs, not called for by a physician's prescription, to be labeled. Since then the Proprietary Association of America has declared its intention of refraining in the future from contributing to Dakota's patent medicine wants.

"Michigan," says Samuel Hopkins Adams in Collier's, "has a strong law, but does not enforce it."

Germany and England are at work on anti-nostrum laws. New Zealand, said to be the best governed country in the world, requires formulas of all proprietary medicines to be lodged with the health department. This has led many proprietary manufacturers to cease exporting their preparations to that country.

A bill to regulate the manufacture and sale of patent and proprietary medicines has been carefully prepared and appeared in the Ladies' Home Journal of February, 1906. This bill, or a similar one, should be introduced into the legislature of this as well as every other state at as early a date as possible. In addition to state legislation, your committee deems it advisable that efforts be made to have an ordinance passed in each city of the state prohibiting the distribution of any sample medicines except when they are placed in the hands of adults; this with a view to shielding the children.

To insure that proper medical legislation be carried out leads your committee to repeat the suggestion already made, that each county society be asked to appoint a committee (preferably of one) on special and legislative work, who shall keep in touch with the legislators in his district,

and shall keep the members of his society well informed, and so secure their aid in driving out the "Great American Fraud"—the patent medicine evil.

C. B. STOCKWELL,
WM. F. BREAKEY,
GEO. C. HAFFORD,
Committee.

Report of Committee on Venereal Prophylaxis.

Mr. President, and Members of the Michigan State Medical Society:

The first meeting of the committee was held in Ann Arbor at the office of Dr. Herdman, soon after the State Society adjourned, and plans adopted for the furtherance of the work. Your committee realized the necessity of being well grounded in any proposition that they might consider proper to bring before the general public regarding the prophylaxis of venereal affections. Statistics are not always reliable, even when we are considering diseases that have not been shamefully contracted, but when it comes to venereal affections, data as to morbidity resulting from these diseases must be carefully considered in order that statements made may not have to be contradicted. It was realized that there was a necessity for a literature carefully prepared, that could be circulated freely among the people, giving facts regarding these affections, such as their frequency, their seriousness, the sequelæ, and the dangers of their being contracted innocently, etc., etc.

Public conventions had never been held to consider venereal prophylaxis, and the question was how such meetings would be received by the public. It was decided that a test should be made in Detroit under the auspices of the Wayne County Medical Society on December 18, 1905, and a program for that meeting was outlined as follows:

PUBLIC MEETING FOR A DISCUSSION OF SANITARY AND MORAL PROPHYLAXIS.

Three-minute talks on the Prevalence and Ravages of Venereal Diseases, as follows:

Nervous Affections Due to Venereal Diseases, Dr. W. J. Herdman, Ann Arbor.

Cost to the State of Patients Who Are in Our Asylums as the Result of Venereal Diseases, Dr. C. B. Burr, Flint.

Venereal Affections as Seen in Surgery, Dr. H. O. Walker.

Venereal Affections as Seen in Ophthalmology, Dr. Flemming Carrow.

Venereal Affections as Seen in Otology, Dr. Emil Amberg.

Venereal Affections as Seen in Pædiatrics, Dr. C. G. Jennings.

Venereal Affections as Seen in Gynecology, Dr. J. H. Carstens.

Venereal Affections as Seen in Dermatology, Dr. A. E. Carrier.

Restriction of Venereal Disease from the Public Health Standpoint, Dr. G. L. Kiefer.

It was the intention of the committee that these short talks should be given in language easily understood by the laity, and that the papers should be printed in the State Journal, reprints of which would supply in part the literature needed in our work.

The reading of the papers was followed by short talks by Prof. Vaughan and Dean Hutchins of Ann Arbor, Rev. A. H. Barr, Rev. L. S. McCollester, Rev. S. S. Marquis, Rev. C. L. Arnold, Rabbi Franklin, and Prof. F. L. Bliss of Detroit. The lay and clerical speakers expressed great surprise at the, to them, astounding morbidity of venereal diseases as stated by the several medical speakers who had preceded them, and expressed their willingness to co-operate in any effort that might be made to educate the people as to the danger of these affections. The audience was impressed by the facts brought to their notice in this public manner in a way that no other means could have accomplished, and it demonstrated to your committee that the public was ready for instruction in venereal prophylaxis. One result of this meeting has been requests for speakers for church clubs, for fraternal societies, for labor organizations, etc., who would discuss prophylaxis. At one such meeting at which your chairman was the speaker, the pastor made the remark in closing that he thought that talk would decide the matter in his church regarding the using of "individual communion cups." It is easy enough to get audiences now to listen to discussions of this nature. As Keys has said, "We seem to be in a time which is psychologically right for this sort of work." The field is ready, and the need is now for workers.

At the Detroit meeting, on motion of Dr. Herdman a committee of six was appointed who were to enlarge the membership of the same by selecting fourteen representative men and women from the state, and this committee was then to organize within one year from the date of its appointment

a society composed of the different professions, trades, business, etc., to have charge of the work. As the work of this committee is in part the work of your committee, I will give in short its doings up to the present time. It has held one meeting, and appointed the following sub-committees, and has added to its membership Dr. Vaughan, Dr. Varney, and C. A. Kent.

Education Committee—Dr. Herdman, Rev. A H. Barr, and Prof. F. L. Bliss.

Publication Committee—Dr. Carrier, Dr. Varney.

Legal Enactments Committee—Dean Hutchins, V. C. Vaughan, C. A. Kent.

Reciprocity Committee—Dr. Biddle.

A meeting was to be held in two months to consider reports from these sub-committees, but, owing to the illness of two members, no meeting has been held, and it has been thought best to defer a meeting until after that of the American Medical Association, where, as you are all aware, venereal prophylaxis is one of the chief topics for discussion. From those who are to take part in that discussion we hope to get valuable data to incorporate in our work in Michigan.

Two International Congresses have been held in Brussels to consider venereal prophylaxis. Berlin has a society two years old that is large enough to support two publications, one for the public and one for the profession. In Paris one has been organized for four years, and it publishes bulletins for general circulation; while in this country societies are being organized in New York, Boston and Philadelphia, all having the same object in view, viz., publicity.

The Detroit meeting was the first one ever held to discuss venereal diseases, and Dr. Denslow Lewis of Chicago came to the meeting in order that he could say that he was present at the first meeting ever held in this country to discuss publicly venereal prophylaxis.

There is no doubt but the action of this society through this committee will be an incentive for other state societies to follow. From correspondence we know that others are looking to see what the outcome is to be in Michigan, and it is essential that, as a society and as individuals, you give your hearty support to this effort. Societies may be organized for this work, but their guidance must be in the hands of the medical profession, but the minister, the lawyer and the teacher will give most valuable assistance.

(Signed) ALBERT E. CARRIER,
WM. J. HERDMAN,
ANDREW P. BIDDLE,
Committee.

County Society News.

IONIA.

The Ionia County Society met May 31st, at Portland, with the largest attendance yet recorded.

Dr. G. E. Stanton, of Belding, read an interesting paper on Melancholia, which was discussed in a scholarly manner by Dr. W. L. Barnes. A general discussion followed in which nearly every one present took part.

Dr. Jas. E. Ferguson, of Belding, presented a clinical report of the satisfactory use of Aspirin in asthma and kindred diseases.

Considerable time was taken up discussing ways and means as to best methods in handling the credit system in medical practice and endeavoring to formulate some plan by which the "dead beat" might be placarded and known when he settled in a new place or a new doctor came where he lived. All motions to take immediate action were tabled pending further consideration of the matter. An earnest discussion came when it was mentioned that several members of the society never attended meetings, and never contributed by paper or clinical report to the society work. And some were severely criticised because they persistently refused to pay dues although one or more years in arrears. In one case it was cited that one member of the county society was holding an important position on one of the state committees and at the same time was two years in arrears and had never attended a meeting of the society. Inasmuch as a county is entitled to but one place on a state committee it was expressed by motion as the desire of the society that this place be given to some one of the county medical society who had been and is now an active worker in his local society and the Secretary instructed to write the Secretary of the State Society regarding this matter.

The names of Drs. L. F. Hoag and George P. Winchell were added to the list of membership.

The next meeting will be held in Ionia, November 8. This being the annual meeting, the time will be taken up largerly with the election of officers for 1907.

Full program will appear in October.

C. S. COPE, Sec'y.

Note: The above action refers to a committee which was discharged at the Petoskey meeting in 1905.—Editor.

A Correction. In the June issue we published an article by Edward J. Bernstein, of Kalamazoo, on "Ear Conditions of Interest to the Family Doctor." This paper was read before the Calhoun County Society in April and before the Berrien County Society in December. It was erroneously printed under the proceedings of the Kalamazoo Academy of Medicine.

Correspondence.

Editor Journal of the Michigan State Medical Society:

Sir—Your June issue contains a paper by J. O. Schlotterbeck, Ph.D., on "The Popular Synthetic Remedies," from which we beg leave to quote the following:

"By prescribing hexamethylenamina, the physician receives an article that is uniform and whose purity and quality can be controlled by the tests of the Pharmacœpia."

If a physician prescribes hexamethylenamina, the pharmacist is very likely to select one of the cheap brands of the drug, and that will certainly be a poor one. It is an error to suppose, as your contributor does, that the pharmacist will always select the best brand, or, indeed, one which will always respond to the Pharmacopœial requirements, since inferior brands are cheaper. Thus, according to the findings of L. F. Kebler, of the U. S. Department of Agriculture, most of the glycerins used do not answer the Pharmacopœial tests.

The profession knows that certain brands of chemicals distinguish themselves for excellence, and hence it frequently specifies on prescriptions "Squibb's" ether, "P. & W.'s" quinine, etc. It is recognized that not all ether and quinine is of the same quality, and the physician endeavors to safeguard against the dispensing of an inferior product.

Urotropin, which is the original product, and on which all the literature is based, was introduced by us in 1894. Soon afterwards imitative products appeared on the market. Urotropin distinguishes itself from its substitutes by the dazzling whiteness of its large, regular, non-agglutinating crystals and by its odorlessness, as a test will show. Many cases of untoward effects produced by imitative products are on record.

Thus the late Dr. Chismore, one of the noted genito-urinary surgeons of the West, published a report in the Journal of Cutaneous and Genito-Urinary Diseases September, 1900. He used urotropin in a case with benefit; but one day the patient complained of pain, burning, etc. Upon investigation he found he had taken the prescription to a different druggist, who dispensed another manufacturer's product. The powders were more woolly and less crystalline. Their discontinuance and the resumption of urotropin were followed by immediate relief.

In the Münich. med Wochenschr., Aug. 15, 1905, Dr. Goldberg writes that "Urotropin-Schering appears to be more effective than the hexamethylentetramin of other origin."

In the Annales des maladies des organes genito-urinaires, Oct. 1, 1905, Guiard says: "Many of the imitative products of urotropin are of doubtful value or are positively injurious."

In the Critic and Guide, March, 1906, Dr. W. J. Robinson, writing on "Proprietary Remedies, from the Physician's Standpoint," states:

"Urotropin was a distinctly new drug when introduced by its manufacturers, and they have rendered a real service to humanity. Why should they not derive the benefit? We all know the drug is chemically hexamethylentetramin, made official under the foolish name hexamethylenamina. I am not at all sure that every nondescript brand is as pure as urotropin, and the patient has to pay the same price."

Dr. Robinson points out that the patient does not get the drug any cheaper when hexamethylenamina is prescribed. The difference goes into the pocket of the druggist, who charges just as much for a prescription if its ingredients cost him 20c as he does if they cost him 30c, the main factor being his time and labor.

But for our efforts, urotropin would probably not be known to the profession in America, certainly not to the present wide extent. Hence it would, but for our work, very likely not be in the Pharmacopoeia. In this connection we beg to quote the following passage from a communication by Prof. A. L. Benedict, published in this

month's "Medical Times":

"There is a point in ethics, from the side of the manufacturer, which we have not seen mentioned in the literature. When a reputable firm places before the profession a really valuable new article, either the result of costly experiment or simply as a matter of ordinary business enterprise, and it is imitated without improvement by other firms, it seems to us plain that the profit should accrue to the original producer and that competing firms should be frankly told that the benefits of trade do not belong to them."

This is a simple dictate of the sense of justice, and in no way "fosters a graft," as Mr. Schlotterbeck remarks.

Yours respectfully,

SCHERING & GLATZ.

New York, June 18, 1906.

Several physicians in Detroit having been imposed upon by the person mentioned, the following circular letter from Mr. Peter Sorensen, the Danish Vice-Consul for Michigan, has been issued:

Dr. John Hansen.

The Royal Danish Vice-Consul at Cleveland, Ohio, reports the above mentioned party to be an imposter.

While in Cleveland, Hansen represented himself as representing the Commune Hospital in Copenhagen, and visited many hospitals in Cleveland under this representation.

Reported as being well-dressed, evidently well educated, speaking German and French fluently, and English fairly.

At Cleveland he stated that while en route from Buffalo to Cleveland he had lost his satchel containing his credentials and letters of credit.

Letters from Hansen's mother and a superintendent in Buffalo show him to be an imposter, besides, he has admitted to the Vice-Consul at Cleveland that he has obtained assistance in Buffalo under false representations. Was arrested in Cleveland at the instance of the Vice-Consul, afterwards released at the instance of that official, and is supposed to be preparing to go to Toledo, Ohio, or Chicago.

Description.

Medium height, very slender, light hair, close cropped red beard, fine clear cut features, unusual forehead, age between 35-40.

Pittsburg, Pa., June 22, 1906.

Journal of Michigan State Medical Society,
Detroit, Michigan.

Sirs:—The seventh annual meeting of the American Roentgen Ray Society will be held August 29-30-31, 1906, at the Cataract and International Hotels, Niagara Falls, N. Y.

A large and interesting program, containing the names of the best known X-ray workers in this country as well as a number from abroad, has been prepared. An interesting feature of the meeting will be the exhibit of prints and negatives. The railroads have granted a rate of a fare-and-a-third on the certificate plan.

The officers of the society are: President, Dr. Henry Hulst, Grand Rapids, Mich.; secretary, Dr. Geo. C. Johnston, Pittsburg, Pa.; treasurer, Dr. Leavitt E. Custer, Dayton, Ohio; vice-presidents, Dr. Russell H. Boggs, Pittsburg; Dr. Clarence E. Skinner, New Haven, Conn.; Dr. Ennion G. Williams, Richmond, Va.; Dr. Eugene W. Caldwell, New York, N. Y.

Full information regarding the meeting and application blanks for membership may be obtained by addressing,

GEORGE C. JOHNSTON, Sec'y.,
Pittsburg, Pa.

Hillsdale, Mich., July 30, 1906.

Editor of the Journal:

Dear Sir:—I send you the enclosed letter to show you what may be done with a little effort to suppress quack advertising.

We have also started legal proceedings against a quack who comes to Hillsdale. He will be arrested on his next return.

Respectfully yours,

A. STRIEMER, M. D.

The letter above referred to is as follows:

Toronto, Canada, July 23rd, 1906.

Dr. A. Striemer, Esq., Hillsdale, Mich.:

Dear Sir and Brother:—I am in receipt of your favor of the 20th instant and beg to say in reply that the advertising matter of which you complain which appeared in the American edition of the *Forester* was inserted without my knowledge, consent or approval. Immediately upon my attention being called to it I notified the advertising manager that it must be discontinued, and I have his assurance that it shall be discontinued.

I am, Yours sincerely and fraternally,

DR. ORONHYATEKHA, S. C. R.

Progress of Medical Science

MEDICINE.

Conducted by

T. B. COOLEY, M. D.

The Clinical Significance of the Urinary Nitrogen—EWING & WOLF present a very complete discussion of the possible clinical value of quantitative determinations of the various nitrogenous constituents of the urine, their main object being to show that determinations of single constituents, such as urea and uric acid, are of little or no value, because of the very great variations possible under normal conditions. The important thing, and the only one from which just conclusions can be drawn, is a complete picture of the nitrogen elimination, showing the amounts of the principal compounds, and their percentage relation to the total nitrogen. They consider at some length the sources of the various nitrogenous bodies of the urine, their physiologic and pathologic variations, and the clinical indications to be derived from them.

Urea and uric acid, varying both absolutely and relatively to the total nitrogen, almost directly with the amount of nitrogenous food ingested, have according to present views no especial clinical significance. Kreatin and kreatenin remain absolutely about the same on any diet. It is quite probable that determinations of these bodies will be of great value in showing the amount of endogenous nitrogen metabolism.

Ammonia varies little absolutely under normal conditions. It is increased by dyspnea and insufficient aeration of the blood; also somewhat by certain diets, such as milk. The most recent work casts doubt on the prevalent view that excess of ammonia nitrogen, together with aceton and certain aliphatic acids, is an evidence of acid intoxication. At present these compounds cannot be said to be an index or measure of auto-intoxication; but may, perhaps, be interpreted as a sign of danger. "Undetermined nitrogen" and animal acids are discussed at length, but no very definite conclusions drawn. It is interesting to find that the old lead acetate method for the detection of leucin was wholly unreliable, and that the crystals so often described in acute yellow atrophy, phosphorus poisoning, etc., were probably urates. Tyrosin has, however, been definitely demonstrated in various conditions; many other ammido occur in the urine, but have not as yet been well worked out. The authors present a table (after Folin) giving the normal relation of the various constituents for varying amounts of total nitrogen, decided departures from which they believe to indicate pathologic disturbances of metabolism. They think that careful urine examinations may show grave importance to attach to certain conditions in which the symptoms are vague, the disorder expressing itself chiefly through the urine. The relative value of technical methods is discussed, and further papers are promised.—*Amer. Jour. Med Sci.*, May, 1906.

Periodic Vomiting with Acetonemia in Children—DICKINSON gives a comprehensive view of the literature of this interesting condition.

The clinical picture is that of the sudden onset of severe vomiting in a child previously apparently well, with no sign of gastrointestinal disturbance. The vomitus is clear and watery, and vomiting continues until the stomach is empty. There is no prevomiting nausea. The vomiting is repeated a varying number of times during the day, and the whole attack lasts usually from two to five days, but may last much longer. During the attack the child is prostrated. Constipation is the rule. There may be slight fever and the pulse is usually accelerated. The tongue is fairly clean. Gastric pain is absent or only present after repeated vomiting. Thirst is intense but drinking causes immediate vomiting. The appetite remains good. The attack ceases suddenly and health is almost immediately re-established, the child showing little sign of having undergone serious illness. Attacks recur at varying intervals, sometimes with marked regularity. The illness may last for years, disappearing with pregnancy. Aceton may be detected on the breath during the attack, and is always found in the urine if looked for daily.

Theories as to the cause are numerous. The most satisfactory is, that it is the effect of unknown toxic substances, caused by deranged metabolism, which accumulate in the organism until the limit of tolerance of the nervous system is reached, when the attack is suddenly produced. Diagnosis is not difficult and the principal conditions to be distinguished are persistent bilious vomiting and tubercular meningitis.

Prognosis is favorable. Death is rare, and usually due to complicating nephritis.

Treatment consists in laxatives, fresh air, exercise, and hydrotherapy. Morphine injections have been used for the vomiting. Alkalies combined with bromides have been used. Edsall and others have had good results from sodium bicarbonate (3 ounces in 24 hours). This is used as a specific on the theory that the disease is a severe acid intoxication.—*Brit. Jour. Child. Dis.*, Apr., 1906.

SURGERY.

Conducted by

MAX BALLIN, M. D.

Surgical Treatment of Gastric Ulcer.—Internal treatment of gastric ulcer is, in 20 per cent of the cases, unsatisfactory, on account of recurrence of the ulcer and serious sequelae of the disease. The mortality from gastric ulcer under internal therapy is between 10 and 13 per cent. It is a matter of fact that many sufferers from gastric ulcers, not cured by internal treatment, are cured or improved by operation. Immediate mortality from operations for gastric ulcer is in recent years 8 to 10 per cent. The final results of these operations for gastric ulcer, collected from 101 cases, all operated upon by the author, are more gratifying, 61 per cent cured, 24 per cent very much improved. Gastric ulcer is considered cured if the ulcer proper has healed, and if the motory and secretory functions of the stomach are restored. The findings in this direction *after operation* are: dilated stomach returns to its normal size; hyperacidity returns to normal condition; free hydrochloric acid is nearly always present after operation, though usually in somewhat smaller quantity than before operation. If hypoacidity or absence of hydrochloric acid existed before operation, in many cases after operation the acid will be restored. Regurgitation of bile into the stomach after operation has no serious consequence and soon disappears.

Choice of Operations.—Gastro-enterostomy is the method of choice in the treatment of gastric ulcer. This operation gives the best conditions for healing of the ulcer and normal function of the stomach, by preventing stagnation of the contents of the stomach. The results of gastro-enterostomy are the best, if gastric ulcer is complicated by stricture of pylorus, adhesions between the stomach and adjacent organs, and dilation of stomach. Also in hemorrhage, gastro-enterostomy has been effectual. Excision of the ulcer should be done only exceptionally because the ulcers are often multiple and even after opening the stomach, can only with the greatest difficulty be located and excised. Besides excision of the *ulcer alone,* often will not benefit the complications mentioned above.

Pyloroplasty and gastrolysis should not be performed. Resection of the pylorus is indicated, if the ulcer located at the pylorus arouses suspicion of carcimona.

Indication for Operation.—A gastric ulcer should be operated, if internal treatment has been unsuccessfully tried, if the patient is disabled by pain, vomiting and dyspepsia, and if a stricture of the pylorus, atonic gastrolstasia or gastroptosis exists. Repeated small hemorrhages are indications for gastroenterostomy. In profuse hemorrhages, threatening the life of the patient, the risk of waiting seems to be less than immediate surgical interference. If operation is decided upon in such cases—gastro-enterostomy is preferable to attempt of direct hemostasis. In simple gastric ulcer without complications, there is no indication for operating early.—Krönlein, *Archie fuer klinische Chirurgie,* Vol. 79, Part 3.

The Third Thousand Goitre Operations.—On August 3rd, 1905, KOCHER of Berne, made his third thousandth operation for goitre. He gives the results of the third thousand, all of which were performed in the same clinic, between November, 1900, and August, 1905. Of the one thousand cases operated upon during this time seven cases died. Of these seven, three were cases of malignant tumor of the thyroid gland, one case of exophthalmic goitre and three operations for simple goitre, one of which was complicated by congenital myxödema, the second died from pneumonia and the third was complicated by double paralysis of the recurrent nerve, severe dyspnoea and myocarditis.

Classifying the different kinds of goitre, the several cases of death are distributed as follows: Of 904 operations for simple goitre three died; of 52 thyreodectomies for Graves's disease one died; of eight cases operated for strumitis none died, and of 36 cases operated for malignant diseases of the thyroid gland 3 died. KOCHER is therefore justified in considering operations for simple goitre a non-dangerous operation. Dangerous wound infection did not occur in any of these 1,000 cases and very rarely light local infection, stitch abcesses, etc. KOCHER lays great stress upon exact hemostasis; he introduces a drainage tube in every case, but usually removes it after 24 hours. Goitre operations are only dangerous if degenerative changes in the lungs, kidneys and especially in the heart are present. The heart should be thoroughly examined before an operation, as to dilatation, regularity and possibility of adaptation to a special strain. If the blood pressure is below 120 m. m. Hg. the operation should be considered as serious. In serious cases, general anesthetic should be avoided. The fact that only degeneration of the heart means a serious danger in operations for goitre, should be a strict indication for every physician to advise early operation, for his goitre patients, before secondary degeneration of the heart sets in. It is also without doubt that this so-called "goitre heart" (*Kropf Herz*) is often caused by injudicious use of iodine and thyroid extract. Also in exophthalmic goitre, operation should not be the last resort; it should be declined if insufficiency of the heart exists. In all operations on the thyroid, preservation of good functional glandular tissue should be the guidance for the method of operating.—*Archiv fuer klinische Chirurgie,* Vol. 97, Part 3.

GYNECOLOGY AND OBSTETRICS.

Conducted by

REUBEN PETERSON, M. D.

Some Clinical Observations on the Etiology of Salpingitis in Nulliparae.—BANDLER says that salpingitis is inflammation of part or all of the Fallopian tube, and that it is possible for one tube to be involved without the other. Infection may enter the tube through the blood channel (tuberculosis) or the abdominal cavity (tuberculosis) or in an ascending infection from the cervix. The same variations in the degree of inflammation are to be noted in salpingitis as may be observed in appendicitis, and in some cases restoration to the normal or so nearly to the normal occurs as to leave no microscopic evidences. The cause of salpingitis in nulliparæ where there has been no intrauterine manipulation, is in most cases a latent unrecognized gonorrhea. He cites a number of instances that have come under his notice, and says that numerous cases of pelvic pain, sterility, and ectopic gestation are the result of such cases of salpingitis. In conclusion he states that there have been many discussions as to the curability of this disease which have not yet been settled.—*Medical Record,* June 9, 1906.

The Localization and Method of Growth of Myomata Uteri is the subject of an interesting paper by KEIFFER. In the course of a piece of work on the uterine blood vessels, Keiffer came across several small fibroids in injected specimens. These, and others in other specimens, he has studied with particular attention directed to the relation of the fibroids to the blood vessels. He concludes that, from his specimens there is proof neither for nor against Cohnheim's theory. On the whole the preparations tend to show that, whether they arise from the action of some irritant brought thither by the blood or not, young myomata can take origin in very different parts of the uterus—in the muscle or fibrous tissue or from the wall of a blood vessel. In type they may be pure myomata, fibromyomata, and limited, encapsulated or diffuse, according (1) to their particular localization, (2) to their mode of growth, whether by the development of pure muscle or the inclusion at various times of part of the tissue forming the capsule, (3) to the degree of reaction in the muscular tissue of the capsule surrounding the primary nodule, and (4) to the amount of reaction on the part of the vessels in the capsule. This latter point determines the condition of the capsule, whether it is highly vascular or so badly developed that there is no proper capsule, and the myoma is of the diffuse variety. In some of the sections there are shown myomata so developed that they actually enclose the blood-vessel in their center. The nutrition and growth of these tumors require the formation of new capillaries from the pre-existing vessels. This is easily seen in most of the preparations, and the great vascularity of those with a central vessel is remarkable. The vascularisation of myomata at an early stage seems of importance in determining their development or stagnation, their atrophy or secondary degeneration, their form and their migration to the surface of the uterus, independently of those other causes of growth inherent in the uterus, its functional activity, the sexual life and the general nutrition of the woman.—*La Gynecologie,* Feb., 1906.

Myomectomy.—In concluding an interesting article on myomectomy, HORROCKS says: "This is, I consider, the ideal operation whenever it is possible of performance. It is not possible in every case of fibroid, for some are so large a size that nothing but a thin shell of uterine tissue remains; for such hysterectomy must be performed.

The question of ligatures is a most important one and has much to do with the success of the operation. It is imperative that they shall be completely aseptic and absorbable. I believe that all bad results can be traced to silk sutures which, being permanent, offer a chance for infection.

The advantages of the operation are that it leaves the patient unmutilated, with her reproductive organs intact, childbearing is possible, the change of life occurs naturally and in due course, and, in the meantime, the patient's life is happier, being free from the inconveniences and drawbacks of a too early menopause. So far as can be judged, the effects of the operation do not seem to render the course of any subsequent pregnancy and labor especially dangerous. I believe that the operation will on its merits be performed more and more frequently in the future, and every modern practitioner should therefore know of it and its usefulness."—*The Practitioner,* July, 1906.

PHARMACOLOGY AND THERAPEUTICS

Conducted by

C. W. EDMUNDS, M. D.

Mercurial Treatment per Rectum.—AUDRY has tried the effects on 48 patients of administering mercury by the rectum and believes that the method is an excellent one. Over half of the cases are reported in detail and they seem to demonstrate that mercury is not only tolerated by the rectum, but also that it is readily absorbed and is as effectual as when given in other ways.

The form of administration is in suppositories, the basis of which is cocoa butter; the metallic mercury is a liquid preparation in olive oil and vaseline, which admixes perfectly with the cocoa butter; each suppository contains 2 ccm. of mercury. One such suppository is given every evening for a month, when they are discontinued for a few days, to be later resumed.

Control cases were used for comparison and it was found that the rectal administration compared most favorably. It was particularly effectual in lesions of the anal, genital and buccal regions. —*Ann. de Derm. et d' Syph.*, VII., No. 3.

Treatment of Chronic Diseases of the Heart by the Nauheim Methods: Its Indications and Contraindications.—KINNICUTT gives the chief constituents of the Nauheim springs as chloride of sodium, chloride of calcium, and carbonic acid gas, free and in combination. As the baths vary in their different constituents they are known as the ordinary brine bath, the thermal brine bath, the thermal effervescent bath, the effervescent bath, the current thermal brine bath, and current effervescent bath. The course of baths usually begins with the brine or the thermal brine bath, strengthened after a short time by the addition of gradually increasing quantities of motherlye. The Schott resistance exercises are used in connection with the baths. The most brilliant successes in the writer's experience are obtained in cases of enfeebled, relaxed, dilated hearts, with or without a murmur, of muscular or relative mitral incompetence following prolonged and exhausting diseases, the various acute infectious diseases, and also associated with anemia of varied causation.—*Medical Record*, May 19, 1906.

The Problem of the Synthetic Compound.—STIEGLITZ states that the problem of the enormous increase of the new synthetics is one of the most serious before the profession. Admitting the commercial or mercenary reasons for their production, he holds that there is a service to be done to humanity and a rational, legitimate ideal to be attained. While the progress has been comparatively slight, consisting for the most part in the production of a few more or less useful antipyretics, some hypnotics, some modifications of alkaloids, and a few more advanced preparations, the chemical successes in other lines, such as in the manufacture of the anilin dyes, teaches a lesson of patience and of hope for the future. The problem is a complex and important one, but he does not see why we should not even attain to the chemical preparation of those specific antitoxins which we now draw from animals, at some time in the future. The main point of his remarks, however, is that there is need of some scientific standard or measure for the impartial sifting of the good from the bad in these synthetics, of some institution, perhaps international, or some central bureau of critical disinterested review.

The need of a check on the great manufacturing houses is illustrated by him by quotations of deceptive chemical nomenclature, though technically truthful, covering what are practically mixtures as rank as any of those recently exposed by the Council on Pharmacy and Chemistry of the American Medical Association. Physicians should insist, he thinks, that all chemical compounds whatever should pass before some reviewing board which will insist that the manufacturers give the truth, the plain truth and nothing but the truth.—*Jour. A. M. A.*, May 5, 1906.

Acetanilid Poisoning from Bromo-Seltzer.—BLACKBURN reports a case of typical acetanilid poisoning from the use of bromo-seltzer, the patient having taken as much as ten or twelve bottles a week. There was no difficulty in the discontinuance of the drug, the patient making no attempt to continue the habit. The other treatment consisted in the use of cardiac stimulants and regulation of the bowels. Blackburn points out that bromo-seltzer admittedly contains four and a half grains of acetanilid to the heaping teaspoonful, and, as shown in *The Journal A. M. A.*, February 10, p. 454, about three grains to the average teaspoonful, or twelve or fifteen grains to the tablespoonful. As many persons take the latter quantity repeatedly, the danger is sufficiently evident.—*Jour. A. M. A.*, June 9, 1906.

PATHOLOGY AND BACTERIOLOGY

Conducted by

A. P. OHLMACHER, M. D.

The Differentiation of the Streptococci—BAUMANN concerns himself with the problem of variation in the different streptococci from human sources. This is still a mooted point in bacteriology and no certain method of differentiating pathogenic and non-pathogenic strains has been devised. By the use of blood agar as a medium and observations directed to the presence of the resorption or colorless halo about the colonies on blood agar plates marking the hemolysis, Schottmüller believed a certain method of identifying pathogenic streptococci had been discovered. In attempting to verify this contention, BAUMANN studied streptococci from various affections in human beings and compared them with streptococci isolated from human saliva, feces, and from cow's milk. He concludes:

1. On Schottmüller's blood agar only definitely pathogenic streptococci of the type *S. longus* or *erysipelatos* produce the characteristic resorption halo, while those isolated from saliva, feces, and milk induce no well-defined hemolysis in this medium.

2. Some of the non-hemolytic strains produce a green coloration on blood agar; but this property varies.

3. In bouillon cultures a pronounced hemolytic effect is determined for the pathogenic streptococci, while for the non-pathogenic strains it is slight or absent.

4. Hemolysin appears in the bouillon cultures in twenty-four hours reaching its maximum density after one to two days, and ordinarily disappearing after 7 to 9 days, though occasionally persisting 14 to 20 days.

5. For differentiating streptococci the cultivation on blood agar is superior to the hemolytic test in bouillon cultures.

6. No variation occurs in the different races of streptococci in their fermentative action on sugars (glucose, milk and cane sugars).

7. In Barsiekow's medium and also in litmus milk no growth of the streptococci is to be observed.—*Munch. med. Wochenschr.*, No. 25, Jahrg., 53, 1906.

Experimental Suprarenal Glycosuria.—Since its discovery in 1901, it has repeatedly been verified that subcutaneous or intravenous injections of a suprarenal extract possess the property of exciting glycosuria in dogs or rabbits. This subject is further studied by VELICH, who employs frogs and whose experiments yield the following results:

Intraabdominal or subcutaneous injection of suprarenal extract into well nourished frogs excites a glycosuria to be detected within the first hour.

Contrary to the views of Herter and Wackerman this suprarenal-glycosuria has no relation to the action of the extract on the pancreas. In pancreectomized frogs, the glycosuria can be detected in the first hour after intraabdominal injection of suprarenal extract, while the glycosuria primarily associated with extirpation of the pancreas first appears from the second to the fifth day.

The extirpation of the spleen, intestine, testicles and ovaries does not inhibit suprarenal-glycosuria.

Therefore the excretion of sugar in the urine after injection of suprarenal extract is dependent on the nutritive status and on the liver, that is on the glycogen reserve in the liver. This glycogen reserve is renewed in fasting frogs at the expense of the fat bodies.

Glycosuria is induced by repeated injections of suprarenal extract so long as the fat bodies are preserved, although cognizance must be taken of the increased tolerance of the organism to the glycogen expelling effect of suprarenal extract.—*Virchow's Archiv.* Bd. 184, Heft 3, 1906.

Contributions to the Etiology of Cerebrospinal Meningitis.—Opportunity to investigate certain aspects of the question relating to the transmission of cerebrospinal meningitis was grasped by DIEUDONNE on the occasion of a recent outbreak of this disease in a Bavarian garrison. In general this report confirms the published observations of other recent authorities as to the finding of the specific organism (the meningococcus of Weichselbaum) with regularity in the fluid of lumbar puncture, and less constantly in the nasal secretion and the blood of the affected patients. The cultural characteristics of the isolated meningococci correspond to the usual descriptions. Agglutination tests with a special serum gave positive results in a dilution as high as 1 to 400. The particularly important part of the work is that bearing on the presence of typical meningococci (carefully differentiated by cultural methods from the closely allied *Micrococcus catarrhalis* of Pfeiffer) in the nasal mucus of certain comrades in the same room in which several cases of meningitis had developed. Among 39 men thus exposed at least 5 positively showed meningococci, and 3 probably were similarly affected. In a number of soldiers not in contact with or exposed to meningitis only the *Micrococcus catarrhalis* could be detected. None of the individuals whose secretions contained meningococci developed meningitis, though one suffered a transient attack of headache and vomiting. They were isolated and not dischaged until the suspicious organisms had disappeared from their secretions. In endeavoring to hasten the destruction of the cocci antiseptic douches and powders were found of no avail. Very properly, DIEUDONNE emphasizes the danger of contagion from these apparently healthy bearers of the meningococcus, particularly through the means of the mucoid spray ejected in the act of coughing or sneezing. As to the dried secretion, the danger is apparently not great since the meningococcus quickly perishes after drying, but the coarser particles of mucus raised in dust by unusual commotion might carry the infection.—*Centralbl. f. Bakteriologie*, Bd. XXXI., Heft 4, 1906.

PEDIATRICS.

Conducted by

R. S. ROWLAND, M. D.

Periodic Vomiting With Acetonemia in Children.—DICKINSON thinks this condition has not received as much attention as it ought.

After a careful consideration of all of the numerous views in regard to the etiology, he concludes that the disease seems to be the effect of some toxic substance, the product, as yet unknown, of a defective metabolism, which accumulates in the tissues, and which, acting on an unstable nervous system whose limit of tolerance is reached, suddenly produces an attack.

He thinks that the diagnosis is not difficult, if we bear in mind the symptoms; the sudden onset, the vomiting, without nausea, resembling the regurgitation of cerebral affections, the appetite preserved in spite of the general condition, and the smell of acetone in the breath and its presence in the urine.

The two chief conditions likely to give rise to difficulty are repeated bilious vomiting and tuberculous meningitis. The diagnosis from the former is thus given: In bilious vomiting there is a history of error in diet, action of the bowels is followed by relief, tongue coated, abdomen distended, abdominal colicky pains with increased peristalsis, clay colored stools and febrile urine; whereas in periodic vomiting there is no sign of previous indigestion or history of unsuitable diet, action of the bowels gives no relief, the tongue may be clean, the abdomen either normal or retracted, there is no colicky pain and no increased peristalsis, the stools are normal, and the urine contains acetone.

With regard to tuberculous meningitis, attention is called to the following points: In periodic vomiting the illness commences suddenly; in tuberculous meningitis, on the other hand, there is usually a prodromal stage. The vomiting is obstinately persistent in the former case, but is present only at the beginning of tuberculous meningitis and ceases during its course. The intelligence is always preserved in periodic vomiting, while in meningitis a subcomatose condition soon supervenes. In those rare cases of tuberculous meningitis where the special nervous symptoms, such as rigidity and Kernig's sign are absent, lumbar puncture might be resorted to settle the diagnosis.

The prognosis is almost always favorable. DICKINSON says treatment has the double object of cutting short the attack and of preventing its recurrence. The only specific treatment founded on a conception of the pathology of the affection is that of Edsall, who considers it due to acid intoxication. He gives a diffusible alkalie such as bicarbonate of soda in large doses, 15 grains every two hours or 3 ounces in twenty-four hours. This treatment seems to have been successful in other hands, combined with sodium bromide. In certain cases, injections of morphine have proved beneficial in allaying the vomiting.—*The British Journal of Children's Diseases*, March, 1906, page 87.

Some Surgical Consideration of Meckel's Diverticulum.—CLOGGS, in an extended review of this subject, finds that Meckel's diverticulum occurs in about 2 per cent of all bodies; that it nearly always arises from the lower ileum, although it has been found located anywhere from the pylorus to the ileo-colic valve.

Excluding band-obstruction, the surgical consideration may be classified as follows, under five heads: (1) Persistence of the tube in whole or in part, its lumen opening at the umbilicus. (2) Inflammation. (3) Volvulus. (4) Intussusception. (5) Hernia of diverticulum.

(1) Persistence of the tube is not very frequent. The subjects are predominantly males. The prognosis as regards life is good. The infants thrive and the small amount of intestinal contents escaping at the umbilicus does not affect them materially. Spontaneous healing occasionally occurs. Simple measures like freshening the edges are sometimes sufficient to effect a cure. When a fistula is present, and most certainly where this communicates with the intestines, such practice is dangerous and ought to be condemned. Radical operation, excision of the diverticulum and closure of the intestine, should be performed here.

(2) Inflammation of the diverticulum is not very common. The author reports two cases in girls, one 13 years, the other aged 11½ years. Both cases were considered to be suppurative appendicitis before operation. CLOGGS states that the etiology and pathology are in many respects similar to that of appendicitis and, as is to be expected, most cases are given that diagnosis. In no case on record has a correct interpretation of the condition been made before operation. The tumifaction formed by diverticulitis is situated more towards the median line than is usual in appendicitis.

(3) Volvulus of the diverticulum is a very rare occurrence.

(4) Intussusception is rare but perhaps slightly more frequent than volvulus.

(5) Hernia of the diverticulum.—Occasionally the diverticulum is found in a congenital umbilical hernia. It may be ligated in the cord. It has also been found in the inguinal sac but not in a child in any other sac.—*The British Journal of Children's Diseases*, February, 1906, p. 41.

DERMATOLOGY AND SYPHILIS

Conducted by

A. P. BIDDLE, M. D.

The Cause of Baldness.—The relationship between seborrhoea and calvities has been almost universally acknowledged, and the pernicious activity of various microbes commonly admitted as a sufficient cause of both conditions. Even grayness of the hair is alleged by Metchnikoff to be due to a pigment devouring microorganism. A new explanation for baldness, however, has been given by JACQUET, who reviews the subject carefully and arrives at the conclusion that the trouble has in most cases at least, a nervous origin.

He calls attention to the fact that the condition is more common among intellectual persons than among others. He is convinced that baldness is of frequent occurrence, not only among those who are intellectual, but also among those who are not subjected to intense mental strain, and under such circumstances it might occur comparatively early. Baldness increases with civilization, and BROCQ has noticed the curious fact that since women have devoted themselves to intellectual pursuits, and have grown accustomed to employ their cerebral center in a more intense manner, baldness, which formerly was rare among them, has progressively become more frequent.

Furthermore, JACQUET has found in several cases of early baldness that there is a degenerative inflammation of the nerves of the scalp. He concludes that the functional excitation of the higher nerve centers in the struggle with the environment at first caused an increased growth of the hair. Subsequently, in the evolution of the race or of the individual, there came a period of functional exhaustion. This is held to be in accordance with the law that excitation at first creates increased vigor of a function, then of its organ; similarly, excess of irritation causes functional disturbance and, if continued, lesion of the organ.—Editorial, *New York Medical Journal,* June 16, 1906.

Trypsin in Malignant Growths.—PUSEY reports its use (Fairchild's sterilized trypsin) in severe cases of inoperable carcinoma in different parts of the body and in one inoperable round-cell sarcoma of the thigh (following the experiments of Beard of Edinburgh): all except one were hopeless from the standpoint of operation or the use of the Roentgen rays. He began with injections of from 5 to 10 drops daily, and in some cases rapidly increased it to a maximum dose of 60 drops daily.

Sometimes the doses—whether small or large—caused little pain and no subsequent irritation at the site of injection; in one or two patients there was bitter complaint occasionally after an injection; frequent inflammatory swellings resulted, and in six or eight instances abscesses developed at the site of injection. The abscesses which formed began as ordinary phlegmonous swellings. When they opened there was a discharge of a thick, sticky, almost transparent serous fluid containing broken-down cheesy masses. After evacuation of an abscess there was left an unhealthy sinus with dirty-grayish, flabby walls, and in three or four instances these enlarged until they formed unhealthy, deep, indolent sinuses of the diameter of a finger or longer. These are slow to heal, but are painless.

In one case, a circumscribed mass of carcinoma in the pectoral muscles on the front of shoulder positive benefit was obtained; but in all the others appreciable harm, the patients seeming to fail more rapidly than before; and in these there has been no appreciable influence on the neoplasms.—*Jour. A. M. A.,* June 9, 1906.

The Dissemination of Smallpox.—The more thorough our knowledge of the acute infectious diseases becomes, the more restricted is the number of diseases which are considered to be due to air-borne contagium. The dissemination of diphtheria is no longer ascribed to infection through the air, and malarial disease and yellow fever are now known to be disseminated by the bite of an infected mosquito. Smallpox is one of the serious infectious diseases the extension of which still baffles us. It is believed by many observers that the contagium of this disorder is transmitted through the air and by fomites. If a certain microorganism proves to be the cause of the disease, it is quite likely that we shall at some time abandon our present notion of an air borne contagium. The experiments of BRINCKERHOFF and TYZZER have shown that smallpox fomites have no power to convey that disease to monkeys. It is true that the disease produced in monkeys by the inoculation of smallpox virus differs from variola vera in man; but is it not possible that an inoculation of monkeys in the natural way, that is, in the same manner that man is infected, might produce variola vera? Is it not possible that the cytoryctes, assuming, for the sake of argument, that that organism is the cause of the disease, may be conveyed from patient to patient, by the bite of an insect? Against this possibility is the fact that smallpox appears to spread in cold weather, when insects are not active. However, epidemics of smallpox often begin in the autumn, at a time when malarial infection is particularly virulent. Further, the fact that the *Cytoryctes variolae* is a protozoan parasite, like the parasite of malaria, may point to an analogy in the method of transmission.—Editorial, *New York Medical Journal,* June 16, 1906.

OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

Treatment of Suppurative Middle Ear Diseases by Biers Congestive Hyperemia.—In regard to the treatment of mastoiditis, FLEISCHMANN says the experiences made the new method appear dangerous in otology. The danger consists in the fact that the right moment for interference may be missed. There may be only insignificant outer changes and yet we find very advanced destruction of the bone. How much more difficult will it be to judge about the case when also these symptoms are disguised by the treatment by congestive hyperemia? The congestive hyperemia takes away the acuity of the picture, it makes a latent form out of the manifest form and lures us into hesitation, which can become of evil consequences for the patient. We may consider that the mistake is by far a greater one to miss the right moment than to perform an operation, another time, when it is superfluous. It cannot be denied that many cases of mastoiditis can be cured by the congestive hyperemia, but we do not know of what nature these are. It is certain that not all cases of mastoiditis can be cured by congestive hyperemia, and so long as we do not know which cases are the proper ones for the method, and so long as we do not know how long an operation may be postponed, we must expect bad results as well as good results from that treatment.—*Monat. f. Ohren h.*, May, 1906.

Diseases of the Cavity After Radical Operation on the Ear.—IWANOFF, describes three cases of diseased walls of the cavity after operation. In one case there was a cyst-like protrusion about one year after the final cure of the disease process. In the two other cases there was a typical cholesteatoma, in one after three years and in one after one year after completed epidermization. Besides, in one of the latter cases there was a mycosis of the cavity. All three cases have in common that the disease process took place below the layer of the epidermis and with participation of the epithelium, so that these affections can be explained as consequences of irregular epidermization of the cavity.—*Arch. f. Ohrenh.*, May, 1906.

Disturbances of the Sensation of Taste in Chronic Middle Ear Suppuration, Especially After Surgical Interference.—Some of the conclusions to which KANDER comes are, that the chorda tympani is frequently diseased in chronic middle ear suppuration. The chorda may, however, be completely preserved or only little changed in spite of serious affection in its surroundings, so that we cannot draw any conclusion from the presence of the sensation of taste at the distal end of the chorda in regard to the gravity and extent of the affection of the middle ear. The chorda tympani is always torn when hammer and anvil are extracted. The subjective sensation of taste on the tongue, after surgical procedures are in all probability caused by irritation of the central portion of the chorda.—*Ibid*, May, 1906.

Circulatory Disturbances Following Ligation of the Internal Jugular Vein in Sinus Thrombosis.—The post mortem findings in the rapidly fatal cases following ligation for conditions outside the skull are general edema of the brain, with hemorrhages and later softenings, while in the very few cases in which the jugulars themselves were investigated the ligated one was found to be of large size, with a small one on the opposite side. Hemorrhages into the brain and edema have been frequently observed in fatal cases of sinus thrombosis. EAGLETON asks whether it is not possible that in some of these, death was in reality due to obstruction of the venous return, the size of the vessels escaping notice. He thinks it is fair to infer that in all cases of sinus thrombosis the presence of optic neuritis should warn us that the return venous flow is already seriously obstructed, and cause us to be exceedingly careful to add as litle further obstruction as possible by our surgical manipulations.

EAGLETON advises to first make as large an opening as possible in the sinus wall and to begin this opening far down toward the bulb, without attempting to remove the clot, in order to avoid the possibility of mistaking a parietal for an occluding thrombus, and reducing to a minimum the probability of disseminating the thrombus. Second, if the thrombus is so low as in the cases reported that this is impossible, he advises the application of a temporary clamp (Crile Clamp) and if now there is no extra bleeding from the diploeic and other small veins, it is fair to infer that the circulation has in no way been disturbed; third, by not injuring the external jugular; fourth, by ligating above the entrance of the facial whenever there is not a positive indication for a lower site being chosen.—*Arch. of Otology*, April, 1906.